STEAME GOES HYBRID

IO3.

STEAME HYBRID BLUEPRINT AT A GLANCE: POLICY RECOMMENDATIONS AND SCHOOL LABEL DEVELOPMENT

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STEAME GOES HYBRID: Blueprint Guidelines and Policy Recommendations

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(EN) Introduction and Terms of Reference

Context/Background

Today's education system cannot follow change and meet demands of globalized technologically driven society, it is constantly undergoing reforming education by introducing and applying innovative teaching methods, practices and tools. The educational policies of the EU states, through innovations, aim at developing and cultivating critical thinking, teamwork, knowledge building, technological literacy and basic skills that students need in order to be able to adapt to the Digital Era.

STEAME (Science, Technology, Engineering, Arts, Mathematics, Entrepreneurship) education is considered to be a driving force for preparing students for the future. The education systems need to be grasped with innovative elements to make young people more resilient, flexible and ultimately successful as they start to contribute to society. The creation of STEAME schools is an important step towards the necessary educational redesign. In 2019, the EU project “STEAME: Guidelines for Developing and Implementing STEAME Schools” was funded. Emerging Education systems that want to develop STEAME schools or related learning activities need a model, activity guidelines or prototypes. These so-called Learning & Creativity Plans have been published on the website www.steame.eu under the STEAME Observatory.

Furthermore, the new Challenge for education, for teachers, for students and education authorities is to be able to implement STEAME Learning activities in a Hybrid format, that is to incorporate physical, online and distance learning in a blended (hybrid) process. Teachers need to use and adapt to new technologies and environments that will allow them to support inquiry based and project activity with students. For this purpose, it is crucial upskilling teachers and providing them with the latest technological solutions to run such hybrid activities. A preliminary step to start this process is that authorities and policy makers are informed on the ideal blueprint environment needed in future schools for STEAME learning environment. A second project, ended in October 2020 named L-Cloud (www.L-Cloud.eu) has developed a MOOC course and Certification to support school teachers in becoming “Adaptable Cloud Education Leaders”.

The project

In this context, the STEAME GOES HYBRID project was planned and implemented; to adapt the previous Certification Programme in producing a Hybrid STEAME Certification Programme.

Teaching and learning online and at distance using digital tools during the 2020 pandemic has been an easy transfer for many teachers and students and most Educational Systems in Europe were able to adapt to some extent. However, many innovative elements are still new to most Educational systems in the EU: working on projects with inquiry based activities like the STEAME

Learning Activities; students working in groups and at distance; two or more teachers cooperating on developing and implementing STEAME Learning & Creativity Plans; the need for online or blended support of groups of students by more than one teacher at the same time; the need for interactive online monitoring of student groups; the need for student assessment through online learning; the need of supporting the special needs students; etc.

The target groups of the project were students of Grades 7-12 and their teachers. Secondary target groups included the teachers' trainers, HE professors in Pedagogy and educational technology, decision makers and education authorities.

In summary, the main objectives of the STEAME goes HYBRID project were to:

- Create hybrid STEAME teaching and learning methods through innovative and technological approaches.
- Provide a digital environment solution with options adapted to existing infrastructures and options for future blueprint solutions that support the hybrid method.
- Engage teachers & students in STEAME activities in online and distance environment with blended learning methods.
- Increase the level of knowledge in digital technologies & communication.
- Provide quality virtual hands-on learning opportunities for students working in groups online.
- Promote cloud computing and new technologies.

Methodology

These policy recommendations were developed by drawing information from 2 sources:

Blueprint Guidelines for Hybrid STEAME activities, focusing on investigating a set of existing competence frameworks (e.g. DigiComp2.1, Intel's, UNESCO's and Microsoft's frameworks and District 64) and exploring the features that can add value to the STEAME context, when introduced, digitally and from distance, to students with the help of focus groups of professionals.

In detail, the project beneficiaries were involved by:

- 4 Focus Groups with education experts (18 participants) to investigate and analyze the existing competence frameworks and point out a set of competences that will empower teachers to implement the hybrid STEAME approach.
- 4 Focus Groups with teachers (24 participants) to investigate the availability of teachers' involvement in project-based online and offline STEAME activities, their understanding of an integrated hybrid approach; focus groups designed to point out a list of appropriate

set of tools that can assist teachers to facilitate the hybrid STEAME activities they will want to develop.

Policy recommendations development.

A first version of this document was drafted by the European Digital Learning Network ETS and reviewed by the project partners. Subsequently, a consultation phase was implemented, involving relevant stakeholders in the school sector. Their feedback has been collected and included in the final version of this document.

Introduction and Terms of Reference in other languages

(GR, IT, PL, RO)

(GR) Εισαγωγή και Όροι Αναφοράς

Πλαίσιο/Υπόβαθρο

Το σημερινό εκπαιδευτικό σύστημα δεν μπορεί να ακολουθήσει τις αλλαγές και να ανταποκριθεί στις απαιτήσεις της παγκοσμιοποιημένης τεχνολογικά καθοδηγούμενης κοινωνίας, αλλά βρίσκεται σε συνεχή διαδικασία μεταρρύθμισης της εκπαίδευσης με την εισαγωγή και εφαρμογή καινοτόμων μεθόδων, πρακτικών και εργαλείων διδασκαλίας. Οι εκπαιδευτικές πολιτικές των κρατών της ΕΕ, μέσω των καινοτομιών, στοχεύουν στην ανάπτυξη και καλλιέργεια της κριτικής σκέψης, της ομαδικής εργασίας, της οικοδόμησης γνώσεων, του τεχνολογικού αλφαβητισμού και των βασικών δεξιοτήτων που χρειάζονται οι μαθητές για να μπορέσουν να προσαρμοστούν στην ψηφιακή εποχή.

Η εκπαίδευση STEAME (Επιστήμη, Τεχνολογία, Μηχανική, Τέχνες, Μαθηματικά, Επιχειρηματικότητα) θεωρείται κινητήρια δύναμη για την προετοιμασία των μαθητών για το μέλλον. Τα εκπαιδευτικά συστήματα πρέπει να κατανοηθούν με καινοτόμα στοιχεία, ώστε οι νέοι να γίνουν πιο ανθεκτικοί, ευέλικτοι και τελικά επιτυχημένοι, καθώς αρχίζουν να συνεισφέρουν στην κοινωνία. Η δημιουργία των σχολείων STEAME είναι ένα σημαντικό βήμα προς τον απαραίτητο εκπαιδευτικό ανασχεδιασμό. Το 2019, χρηματοδοτήθηκε το έργο της ΕΕ "STEAME: Κατευθυντήριες γραμμές για την ανάπτυξη και την υλοποίηση σχολείων STEAME". Τα αναδυόμενα εκπαιδευτικά συστήματα που θέλουν να αναπτύξουν σχολεία STEAME ή συναφείς μαθησιακές δραστηριότητες χρειάζονται ένα μοντέλο, κατευθυντήριες γραμμές δραστηριοτήτων ή πρωτότυπα. Αυτά τα λεγόμενα Σχέδια Μάθησης και Δημιουργικότητας έχουν δημοσιευτεί στον ιστότοπο www.steame.eu στο πλαίσιο του Παρατηρητηρίου STEAME.

Επιπλέον, η νέα πρόκληση για την εκπαίδευση, τους εκπαιδευτικούς, τους μαθητές και τις εκπαιδευτικές αρχές είναι να μπορούν να εφαρμόζουν δραστηριότητες μάθησης STEAME σε υβριδική μορφή, δηλαδή να ενσωματώνουν φυσική, διαδικτυακή και εξ αποστάσεως μάθηση σε μια μικτή (υβριδική) διαδικασία. Οι εκπαιδευτικοί πρέπει να χρησιμοποιήσουν και να προσαρμοστούν σε νέες τεχνολογίες και περιβάλλοντα που θα τους επιτρέψουν να υποστηρίξουν δραστηριότητες που βασίζονται στη διερεύνηση και σε έργα με τους μαθητές. Για το σκοπό αυτό, είναι ζωτικής σημασίας η επιμόρφωση των εκπαιδευτικών και η παροχή σε αυτούς των πιο πρόσφατων τεχνολογικών λύσεων για τη διεξαγωγή τέτοιων υβριδικών δραστηριοτήτων. Ένα προκαταρκτικό βήμα για την έναρξη αυτής της διαδικασίας είναι να ενημερωθούν οι αρχές και οι υπεύθυνοι χάραξης πολιτικής για το ιδανικό περιβάλλον που απαιτείται στα μελλοντικά σχολεία για το μαθησιακό περιβάλλον STEAME. Ένα δεύτερο έργο, που έληξε τον Οκτώβριο του 2020 με την ονομασία L-Cloud (www.L-Cloud.eu) ανέπτυξε ένα μάθημα MOOC και μια πιστοποίηση για να υποστηρίξει τους εκπαιδευτικούς των σχολείων να γίνουν "προσαρμοστικοί ηγέτες εκπαίδευσης στην πλατφόρμα υπολογιστών cloud".

Το έργο

Σε αυτό το πλαίσιο, σχεδιάστηκε και υλοποιήθηκε το έργο STEAME GOES HYBRID για την προσαρμογή του προηγούμενου προγράμματος πιστοποίησης με την παραγωγή ενός υβριδικού προγράμματος πιστοποίησης STEAME.

Η διδασκαλία και η μάθηση στο διαδίκτυο και εξ αποστάσεως με τη χρήση ψηφιακών εργαλείων κατά τη διάρκεια της πανδημίας του 2020 ήταν μια εύκολη μεταφορά για πολλούς εκπαιδευτικούς και μαθητές και τα περισσότερα εκπαιδευτικά συστήματα στην Ευρώπη μπόρεσαν να προσαρμοστούν σε κάποιο βαθμό. Ωστόσο, πολλά καινοτόμα στοιχεία εξακολουθούν να είναι νέα για τα περισσότερα Εκπαιδευτικά Συστήματα στην ΕΕ: η εργασία σε έργα με δραστηριότητες που βασίζονται στη διερεύνηση, όπως οι μαθησιακές δραστηριότητες STEAME -οι μαθητές εργάζονται σε ομάδες και από απόσταση- δύο ή περισσότεροι εκπαιδευτικοί συνεργάζονται για την ανάπτυξη και εφαρμογή των σχεδίων μάθησης και δημιουργικότητας STEAME- η ανάγκη για διαδικτυακή ή μικτή υποστήριξη ομάδων μαθητών από περισσότερους από έναν εκπαιδευτικούς ταυτόχρονα- η ανάγκη για διαδραστική διαδικτυακή παρακολούθηση των ομάδων μαθητών- η ανάγκη για αξιολόγηση των μαθητών μέσω διαδικτυακής μάθησης- η ανάγκη υποστήριξης των μαθητών με ειδικές ανάγκες- κ.λπ.

Οι ομάδες-στόχοι του έργου ήταν μαθητές των τάξεων 7-12 και οι καθηγητές τους. Στις δευτερεύουσες ομάδες-στόχους περιλαμβάνονταν οι επιμορφωτές των εκπαιδευτικών, καθηγητές ΑΕΙ στην Παιδαγωγική και την εκπαιδευτική τεχνολογία, υπεύθυνοι λήψης αποφάσεων και εκπαιδευτικές αρχές.

Συνοπτικά, οι κύριοι στόχοι του έργου STEAME goes HYBRID ήταν:

- Δημιουργία υβριδικών μεθόδων διδασκαλίας και μάθησης STEAME μέσω καινοτόμων και τεχνολογικών προσεγγίσεων.
- Παροχή λύσης ψηφιακού περιβάλλοντος με επιλογές προσαρμοσμένες στις υπάρχουσες υποδομές και επιλογές για μελλοντικές λύσεις σχεδιαγράμματος που υποστηρίζουν την υβριδική μέθοδο.
- Ενεργοποίηση εκπαιδευτικών και μαθητών σε δραστηριότητες STEAME σε διαδικτυακό και εξ αποστάσεως περιβάλλον με μικτές μεθόδους μάθησης.
- Αύξηση του επιπέδου γνώσεων στις ψηφιακές τεχνολογίες και την επικοινωνία.
- Παροχή ποιοτικών εικονικών ευκαιριών πρακτικής μάθησης για τους μαθητές που εργάζονται σε ομάδες στο διαδίκτυο.
- Προώθηση του “cloud computing” και των νέων τεχνολογιών.

Μεθοδολογία

Αυτές οι συστάσεις πολιτικής αναπτύχθηκαν με την άντληση πληροφοριών από 2 πηγές:

Κατευθυντήριες Γραμμές για υβριδικές STEAME δραστηριότητες, εστιάζοντας στη διερεύνηση ενός συνόλου υφιστάμενων πλαισίων ικανοτήτων (π.χ. Digi Comp2.1, τα πλαίσια της Intel, της UNESCO και της Microsoft και το District 64) και στη διερεύνηση των χαρακτηριστικών που μπορούν να προσθέσουν αξία στο πλαίσιο STEAME, όταν εισάγονται, ψηφιακά και εξ αποστάσεως, στους μαθητές με τη βοήθεια ομάδων εστίασης επαγγελματιών.

Αναλυτικότερα, οι δικαιούχοι του έργου συμμετείχαν με:

- 4 Ομάδες εστίασης με εμπειρογνώμονες της εκπαίδευσης (18 συμμετέχοντες) για τη διερεύνηση και ανάλυση των υφιστάμενων πλαισίων ικανοτήτων και την επισήμανση ενός συνόλου ικανοτήτων που θα ενδυναμώσουν τους εκπαιδευτικούς να εφαρμόσουν την υβριδική προσέγγιση STEAME.
- 4 Ομάδες εστίασης με εκπαιδευτικούς (24 συμμετέχοντες) για να διερευνηθεί η διαθεσιμότητα της συμμετοχής των εκπαιδευτικών σε διαδικτυακές και μη διαδικτυακές δραστηριότητες STEAME που βασίζονται σε έργα, η κατανόησή τους για μια ολοκληρωμένη υβριδική προσέγγιση; οι ομάδες εστίασης σχεδιάστηκαν για να υποδείξουν έναν κατάλογο κατάλληλων εργαλείων που μπορούν να βοηθήσουν τους εκπαιδευτικούς να διευκολύνουν τις υβριδικές δραστηριότητες STEAME που θα θελήσουν να αναπτύξουν.

Ανάπτυξη συστάσεων πολιτικής.

Μια πρώτη έκδοση του παρόντος εγγράφου συντάχθηκε από το Ευρωπαϊκό Δίκτυο Ψηφιακής Μάθησης ETS (DLearn ETS) και επανεξετάστηκε από τους εταίρους του έργου. Στη συνέχεια, υλοποιήθηκε μια φάση διαβούλευσης, στην οποία συμμετείχαν οι ενδιαφερόμενοι φορείς του σχολικού τομέα. Τα σχόλιά τους συλλέχθηκαν και συμπεριλήφθηκαν στην τελική έκδοση του παρόντος εγγράφου.

(IT) Introduzione e Termini di Riferimento

Contesto

Il sistema educativo odierno non è in grado di tenere il passo del cambiamento e di soddisfare le esigenze della società globalizzata e guidata dalla tecnologa, è costantemente in fase di riforma dell'istruzione, introducendo e applicando metodi, pratiche e strumenti didattici innovativi. Le politiche educative degli Stati dell'UE, attraverso le innovazioni, mirano a sviluppare e coltivare il pensiero critico, il lavoro di squadra, la costruzione di conoscenze, l'alfabetizzazione tecnologica e le competenze di base di cui gli studenti hanno bisogno per potersi adattare all'era digitale.

L'istruzione STEAME (Science, Technology, Engineering, Arts, Mathematics, Entrepreneurship) è attualmente considerata una delle chiavi della preparazione degli studenti al futuro. I sistemi educativi devono essere dotati di elementi innovativi per rendere i giovani più resilienti, flessibili ed attivi contributori alla società. La creazione delle scuole STEAME è un passo importante verso la necessaria riprogettazione dell'istruzione. Nel 2019, il progetto "STEAME: Guidelines for Developing and Implementing STEAME Schools" è stato finanziato dall'UE. I sistemi educativi emergenti che vogliono sviluppare scuole STEAME o attività di apprendimento correlate hanno bisogno di un modello, di linee guida per le attività o di prototipi. Questi cosiddetti Piani di apprendimento e creatività sono stati pubblicati sul sito web www.steame.eu.

Inoltre, la nuova sfida per l'istruzione, per gli insegnanti, per gli studenti e per le autorità educative è quella di essere in grado di implementare le attività di apprendimento STEAME in un formato ibrido, cioè di incorporare l'apprendimento fisico, online e a distanza in un processo misto (ibrido appunto). Gli insegnanti devono utilizzare e sapersi adattare a nuove tecnologie e ambienti che consentano loro di supportare attività basate sull'indagine e sui progetti con gli studenti. A tal fine, è fondamentale formare gli insegnanti e fornire loro le soluzioni tecnologiche più recenti per gestire queste attività ibride. Un passo preliminare per avviare questo processo è che le autorità e i responsabili politici siano informati sulle necessità delle scuole del futuro per l'ambiente di apprendimento STEAME. Un secondo progetto, terminato nell'ottobre 2020 e denominato L-Cloud (www.L-Cloud.eu), ha sviluppato un corso MOOC e una certificazione per supportare gli insegnanti delle scuole a diventare "Leader dell'Educazione Adattabile al Cloud".

Il progetto

In questo contesto, è stato pianificato e realizzato il progetto STEAME GOES HYBRID; per adattare il precedente programma di certificazione per la Scuola Ibrida.

Insegnare e apprendere online e a distanza utilizzando strumenti digitali durante la pandemia del 2020 è stato un passaggio relativamente facile per molti insegnanti e studenti e la maggior parte dei sistemi educativi in Europa è stata in grado di adattarsi in qualche misura. Tuttavia, molti elementi innovativi sono ancora nuovi per la maggior parte dei sistemi educativi dell'UE: lavorare su progetti con attività basate sull'indagine come l'apprendimento STEAME; studenti che lavorano in gruppo e a distanza; due o più insegnanti che collaborano allo sviluppo e all'attuazione dei piani di apprendimento e creatività STEAME; la necessità di un supporto online o misto di gruppi di studenti da parte di più di un insegnante contemporaneamente; la necessità di un monitoraggio online interattivo dei gruppi di studenti; la necessità di una valutazione degli studenti attraverso l'apprendimento online; la necessità di sostenere gli studenti con esigenze speciali; ecc.

I gruppi target del progetto erano gli studenti dei gradi 7-12 e i loro insegnanti. I gruppi target secondari includevano i formatori degli insegnanti, i professori di pedagogia e tecnologia educativa, i responsabili politici e le autorità in ambito educativo.

In sintesi, gli obiettivi principali del progetto STEAME goes HYBRID sono stati:

- Creare metodi ibridi di insegnamento e apprendimento STEAME attraverso approcci innovativi e tecnologici.
- Fornire una soluzione per l'ambiente digitale con opzioni adattate alle infrastrutture esistenti e opzioni per future soluzioni blueprint che supportino il metodo ibrido.
- Coinvolgere insegnanti e studenti in attività STEAME in ambiente online e a distanza con metodi di apprendimento misto.
- Aumentare il livello di conoscenza delle tecnologie digitali e della comunicazione.
- Fornire opportunità di apprendimento virtuale di qualità agli studenti che lavorano in gruppo online.
- Promuovere il cloud computing e le nuove tecnologie.

Metodologia

Queste raccomandazioni sono state sviluppate attingendo informazioni da due fonti:

Linee guida per attività STEAME ibride, incentrate sull'analisi di una serie di quadri di competenze esistenti (ad esempio DigiComp2.1, Intel, UNESCO e Microsoft e District 64) e

sull'esplorazione, tramite focus group di professionisti, delle caratteristiche che possono aggiungere valore al contesto STEAME.

In dettaglio, i beneficiari del progetto sono stati coinvolti da:

- 4 focus group con esperti dell'istruzione (18 partecipanti) per indagare e analizzare i quadri di competenze esistenti e indicare una serie di competenze che consentiranno agli insegnanti di implementare l'approccio ibrido STEAME.
- 4 focus group con gli insegnanti (24 partecipanti) per indagare la disponibilità degli insegnanti a partecipare ad attività STEAME online e offline basate su progetti, la loro comprensione di un approccio ibrido integrato; i focus group sono stati progettati per indicare un elenco di strumenti appropriati che possano aiutare gli insegnanti a facilitare le attività STEAME ibride che vorranno sviluppare.

Sviluppo di raccomandazioni politiche.

Una prima versione di questo documento è stata redatta dal partner DLEARN e rivista dai partner del progetto. Successivamente i vari stakeholder del sistema scolastico sono stati coinvolti in un'ulteriore consultazione. Il loro feedback è stato raccolto e incluso nella versione finale di questo documento.

(PL) Wprowadzenie i Warunki odniesienia

Kontekst/Tło

Dzisiejszy system edukacji nie nadąża za zmianami i nie może sprostać wymaganiom zglobalizowanego społeczeństwa napędzanego technologią, nieustannie reformuje edukację poprzez wprowadzanie i stosowanie innowacyjnych metod, praktyk i narzędzi nauczania. Polityka edukacyjna państw UE, poprzez innowacje, ma na celu rozwijanie i kultywowanie krytycznego myślenia, pracy zespołowej, budowania wiedzy, znajomości technologii i podstawowych umiejętności, których uczniowie potrzebują, aby móc dostosować się do ery cyfrowej.

Edukacja STEAME (Science, Technology, Engineering, Arts, Mathematics, Entrepreneurship) jest uważana za siłę napędową przygotowania uczniów na przyszłość. Systemy edukacji muszą być wyposażone w innowacyjne elementy, aby młodzi ludzie byli bardziej odporni, elastyczni i ostatecznie odnieśli sukces, gdy zaczną wnosić wkład w społeczeństwo. Utworzenie szkół STEAME jest ważnym krokiem w kierunku koniecznej przebudowy edukacyjnej. W 2019 roku sfinansowano projekt unijny „STEAME: Guidelines for Developing and Implementing STEAME Schools". Powstające systemy edukacyjne, które chcą rozwijać szkoły STEAME lub powiązane

działania edukacyjne, potrzebują modeli i wytycznych dotyczących działań lub prototypów. Te tak zwane plany nauki i kreatywności (Learning & Creativity Plans) zostały opublikowane na stronie internetowej www.steame.eu w ramach Obserwatorium STEAME.

Ponadto nowym wyzwaniem dla edukacji, dla nauczycieli, uczniów i władz oświatowych jest możliwość wdrażania działań edukacyjnych STEAME w formacie hybrydowym, to znaczy włączenia nauki fizycznej, online i na odległość w proces mieszany (hybrydowy). Nauczyciele muszą wykorzystywać i dostosowywać się do nowych technologii i środowisk, które pozwolą im wspierać uczniów w działaniach opartych na dociekaniach i projektach. W tym celu kluczowe jest podnoszenie kwalifikacji nauczycieli i dostarczanie im najnowszych rozwiązań technologicznych do prowadzenia takich hybrydowych działań. Wstępnym krokiem do rozpoczęcia tego procesu jest poinformowanie władz i decydentów o idealnym środowisku projektowym potrzebnym w przyszłych szkołach dla środowiska uczenia się STEAME. W ramach drugiego projektu, zakończonego w październiku 2020 r., o nazwie L-Cloud (www.L-Cloud.eu), opracowano kurs MOOC i certyfikację, aby pomóc nauczycielom szkolnym w zostaniu „Adaptable Cloud Education Leaders".

Projekt

W tym kontekście zaplanowano i wdrożono projekt STEAME GOES HYBRID; dostosowanie poprzedniego Programu Certyfikacji w celu stworzenia nowego Programu Certyfikacji dla hybrydowego działania.

Nauczanie i uczenie się online i na odległość przy użyciu narzędzi cyfrowych podczas pandemii w 2020 r. było stosunkowo łatwe dla wielu nauczycieli i uczniów, a większość systemów edukacyjnych w Europie było w stanie w pewnym stopniu się dostosować. Jednak wiele innowacyjnych elementów jest wciąż nowością w większości systemów edukacyjnych w UE: praca nad projektami z działaniami opartymi na dociekaniu, takimi jak zajęcia edukacyjne STEAME; studenci pracujący w grupach i na odległość; dwóch lub więcej nauczycieli współpracujących przy opracowywaniu i wdrażaniu planów uczenia się i kreatywności STEAME; potrzeba wsparcia online lub mieszanego grup uczniów przez więcej niż jednego nauczyciela w tym samym czasie; potrzeba interaktywnego monitoringu online grup studenckich; zasady oceniania uczniów podczas nauki online; potrzeba wspierania uczniów ze specjalnymi potrzebami; itp.

Grupą docelową projektu byli uczniowie klas 7-12 oraz ich nauczyciele. Pośrednie grupy docelowe obejmowały osoby szkolące nauczycieli, profesorów szkolnictwa wyższego w zakresie pedagogiki i technologii edukacyjnych, decydentów i władze oświatowe.

Podsumowując, głównymi celami projektu STEAME GOES HYBRID było:

- Tworzenie hybrydowych metod nauczania i uczenia się poprzez innowacyjne i technologiczne podejście.
- Zapewnienie rozwiązania w zakresie środowiska cyfrowego z opcjami dostosowanymi do istniejącej infrastruktury oraz opcjami dla przyszłych rozwiązań projektowych, które obsługują metodę hybrydową.
- Zaangażowanie nauczycieli i uczniów w działania STEAME w środowisku online i na odległość za pomocą mieszanych metod nauczania.
- Podniesienie poziomu wiedzy w zakresie technologii cyfrowych i komunikacji.
- Zapewnienie studentom pracującym w grupach online możliwości wysokiej jakości praktycznej nauki wirtualnej.
- Promowanie przetwarzania w chmurze i nowych technologii.

Metodologia

Te zalecenia dotyczące polityki zostały opracowane na podstawie informacji z 2 źródeł:

Wytyczne (Blueprint) dla działań Hybrid STEAME, koncentrujące się na badaniu zestawu istniejących ram kompetencji (np. ramy DigiComp2.1, Intel, UNESCO i Microsoft oraz District 64) oraz badanie funkcji, które mogą dodać wartość do kontekstu STEAME, gdy zostaną wprowadzone, cyfrowo i na odległość, dla uczniów, wypracowane z pomocą grup eksperckich.

Bardziej szczegółowo, beneficjenci projektu byli zaangażowani poprzez:

- 4 grupy dyskusyjne z ekspertami ds. edukacji (18 uczestników) w celu zbadania i przeanalizowania istniejących ram kompetencji oraz wskazania zestawu kompetencji, które umożliwią nauczycielom wdrożenie hybrydowego podejścia STEAME.
- 4 grupy dyskusyjna z nauczycielami (24 uczestników) w celu zbadania dostępności zaangażowania nauczycieli w oparte na projektach działania STEAME online i offline, ich zrozumienie zintegrowanego podejścia hybrydowego; grupy dyskusyjne zaprojektowane w celu wskazania listy odpowiedniego zestawu narzędzi, które mogą pomóc nauczycielom w ułatwieniu hybrydowych działań STEAME, które będą chcieli opracować.

Opracowanie zaleceń dotyczących polityki.

Pierwsza wersja tego dokumentu została opracowana przez Europejską Sieć Cyfrowego Nauczania ETS i zweryfikowana przez partnerów projektu. Następnie wdrożono fazę konsultacji z udziałem odpowiednich interesariuszy z sektora szkolnego. Ich opinie zostały zebrane i uwzględnione w ostatecznej wersji tego dokumentu.

(RO) Introducere și Termeni de Referință

Context/Background

Sistemul de învățământ de astăzi nu poate urma schimbările și răspunde cerințelor societății globalizate conduse de tehnologie, el este în continuă reformare a educației prin introducerea și aplicarea de metode, practici și instrumente de predare inovatoare. Politicile educaționale ale statelor UE, prin inovații, urmăresc dezvoltarea și cultivarea gândirii critice, munca în echipă, construirea cunoștințelor, alfabetizarea tehnologică și abilitățile de bază de care elevii au nevoie pentru a se putea adapta la Era Digitală.

Educația STEAME (Știință, Tehnologie, Inginerie, Arte, Matematică, Antreprenoriat) este considerată o forță motrice pentru pregătirea elevilor pentru viitor. Sistemele educaționale trebuie să fie dotate cu elemente inovatoare pentru a face tinerii mai rezistenți, flexibili și, în cele din urmă, de succes, pe măsură ce încep să contribuie la dezvoltarea societății. Crearea școlilor STEAME este un pas important către reproiectarea educațională necesară. În 2019, a fost finanțat proiectul UE „STEAME: Guidelines for Developing and Implementing STEAME Schools". Sistemele de învățământ emergente care doresc să dezvolte școli STEAME sau activități de învățare conexe au nevoie de un model, ghiduri de activitate sau prototipuri. Aceste așa-numite Planuri/unități de învățare și creativitate au fost publicate pe site-ul www.steame.eu sub Observatorul STEAME.

Mai mult, noua Provocare pentru educație, pentru profesori, pentru studenți și autoritățile educaționale este de a putea implementa activitățile de învățare STEAME într-un format hibrid, adică de a încorpora învățarea fizică, online și la distanță într-un proces mixt (hibrid). Profesorii trebuie să utilizeze și să se adapteze la noile tehnologii și medii care le vor permite să susțină activități bazate pe anchete și proiecte cu elevii. În acest scop, este esențial să participe la sesiuni de perfecționare care să le ofere cele mai noi soluții tehnologice pentru a desfășura astfel de activități hibride. Un pas preliminar pentru a începe acest proces este ca autoritățile și factorii de decizie să fie informați cu privire la mediul ideal necesar în școlile viitoare pentru învățarea de tip STEAME. Un al doilea proiect, încheiat în octombrie 2020, numit L-Cloud (www.L-Cloud.eu) a dezvoltat un curs MOOC și o certificare pentru a sprijini profesorii din școli să devină „Lideri pentru *Învățarea adaptabilă în cloud*".

Proiectul

În acest context, a fost planificat și implementat proiectul STEAME GOES HYBRID; pentru a adapta programul de certificare anterior la producerea unui program de certificare STEAME hibrid.

Predarea și învățarea online și la distanță folosind instrumente digitale în timpul pandemiei din 2020 a fost un transfer ușor pentru mulți profesori și studenți, iar majoritatea sistemelor educaționale din Europa s-au putut adapta într-o oarecare măsură. Cu toate acestea, multe elemente inovatoare sunt încă noi pentru majoritatea sistemelor educaționale din UE: lucrul la proiecte cu activități bazate pe identificarea și rezolvarea de probleme, cum sunt activitățile de învățare STEAME; elevi care lucrează în grup și la distanță; doi sau mai mulți profesori care cooperează la dezvoltarea și implementarea planurilor/unităților de învățare și creativitate STEAME; nevoia de sprijin online sau mixt a grupurilor de elevi de către mai mult de un profesor în același timp; necesitatea monitorizării online interactive a grupurilor de elevi; necesitatea evaluării elevilor prin învățarea online; necesitatea sprijinirii elevilor cu nevoi speciale; etc.

Grupurile țintă ale proiectului au fost elevii din clasele 7-12 și profesorii acestora. Grupurile țintă secundare au inclus formatorii de cadre didactice, profesorii în Pedagogie și tehnologie educațională, factorii de decizie și autoritățile educaționale.

Pe scurt, principalele obiective ale proiectului STEAM goes HYBRID au fost:

- Crearea unor metode hibride de predare și învățare STEAME prin abordări inovatoare și tehnologice.
- Furnizarea de soluții pentru un mediu digital cu opțiuni adaptate infrastructurilor existente și opțiuni pentru viitoarele soluții de model spațial care valorizează metodele hibride.
- Implicarea profesorilor și a elevilor în activitățile STEAME în mediul online și la distanță cu metode de învățare combinată.
- Creșterea nivelului de cunoștințe în tehnologii digitale și comunicare.
- Oferirea de oportunități virtuale de învățare practică de calitate pentru elevii și studenții care lucrează în grupuri online.
- Promovarea noilor tehnologii și a spațiului virtual de învățare.

Metodologia

Aceste recomandări de politici au fost elaborate prin extragerea de informații din două surse:

- linii directoare pentru activitățile hibride STEAME, concentrându-se pe investigarea unui set de cadre de referință ale competențelor relevante existente (de exemplu, cadrele DigiComp2.1, Intel, UNESCO, Microsoft , 21st Century Skills) și
- explorarea caracteristicilor care pot adăuga valoare contextului STEAME, atunci când sunt introduse digital și de la distanță, cu ajutorul focus-grupurilor de profesioniști.

În detaliu, beneficiarii proiectului au fost implicați prin organizarea a:

- 4 focus grupuri cu experți în educație (18 participanți) pentru a investiga și analiza cadrele de competențe existente și pentru a indica un set de competențe care vor permite profesorilor să implementeze abordarea hibridă STEAME.
- 4 focus grupuri cu profesori (24 de participanți) pentru a investiga disponibilitatea implicării profesorilor în activitățile STEAME online și offline bazate pe proiecte, înțelegerea unei abordări hibride integrate; focus grupuri concepute pentru a evidenția o listă de instrumente care pot ajuta profesorii să faciliteze activitățile hibride STEAME .

Elaborarea recomandărilor de politici

O primă versiune a acestui document a fost elaborată de Rețeaua Europeană de Învățare Digitală ETS și revizuită de partenerii proiectului. Ulterior, a fost implementată o fază de consultare, care a implicat părțile interesate relevante din sectorul școlar. Feedback-ul lor a fost colectat și inclus în versiunea finală a acestui document.

First draft of the policy recommendations

The first draft of the policy recommendations were developed by drawing information from:

Blueprint Guidelines for Hybrid STEAME activities, focusing on investigating a set of existing competence frameworks (e.g. DigiComp2.1, Intel's, UNESCO's and Microsoft's frameworks and District 64) and exploring the features that can add value to the STEAME context, when introduced, digitally and from distance, to students with the help of focus groups of professionals.

In detail, the project beneficiaries were involved by:

- 4 Focus Groups with education experts (18 participants) to investigate and analyze the existing competence frameworks and point out a set of competences that will empower teachers to implement the hybrid STEAME approach.

- 4 Focus Groups with teachers (24 participants) to investigate the availability of teachers' involvement in project-based online and offline STEAME activities, their understanding of an integrated hybrid approach; focus groups designed to point out a list of appropriate set of tools that can assist teachers to facilitate the hybrid STEAME activities they will want to develop.

(EN) EU priorities in the field of Digital Education (focus on Hybrid education)

To understand what the current EU policies approach on the "hybrid revolution" in school and education, we needed to refer to 3 main documents:

- The COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on achieving the European Education Area by 2025;

- The DIGITAL EDUCATION ACTION PLAN 2021-2027;

- The COUNCIL RESOLUTION ON A STRATEGIC FRAMEWORK FOR EUROPEAN COOPERATION IN EDUCATION AND TRAINING TOWARDS THE EUROPEAN EDUCATION AREA AND BEYOND (2021-2030).

The **COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on achieving the European Education Area by 2025** clarifies that the efforts of the commission for the five-year period will be focused on 6 main areas:

1. Quality
2. Inclusion and Gender equality
3. Green and digital transition
4. Teachers and Trainers
5. Higher education
6. Geopolitical dimension

In line with what is proposed by the STEAME goes HYBRID project, the COMMUNICATION states that:

"Education and training at all levels should equip people with the digital skills, but also other competences, such as entrepreneurship and learning to learn, which are needed to navigate in the labour market transformed by technological change."[1]

[1] European Commission, 2020. *COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on achieving the European Education Area by 2025*. p.9.

However, no specific mention is made of hybrid contexts.

The **Digital Education Action Plan (2021-2027)** mentions hybrid contexts only marginally:

"According to respondents, digital technology should be integrated into the education and training system based on a consistent set of quality standards and guidelines, ensuring an appropriate mix of digital and face-to-face learning experiences. While they considered face-to-face interaction as vital, many respondents expect the crisis to accelerate the shift to blended or hybrid education and training."[2]

"Effective digital capacity planning and development is vital for education and training systems. This requires the development and ongoing review and updating of digital strategies addressing technology gaps in infrastructure, devices and developing relevant organizational capabilities in education, including the capacity to deliver hybrid modes of learning and teaching (remote and on-site)."[3]

In the **COUNCIL RESOLUTION ON A STRATEGIC FRAMEWORK FOR EUROPEAN COOPERATION IN EDUCATION AND TRAINING TOWARDS THE EUROPEAN EDUCATION AREA AND BEYOND (2021-2030),** although the issue of digitization is widely taken into consideration, no mention is made of hybrid contexts.

The analysis of these documents made it clear that a specific policy framework has not been developed yet at the EU level to cover and guide the innovation process represented by hybrid teaching and learning and to monitor the effects that this will have on education systems in the EU. The lack of dedicated policies is one of the main reasons behind the efforts that STEAME goes HYBRID project has put in developing this document.

Collecting input from the previous two activities, a first version of the Policy Recommendations was drafted by the European Digital Learning Network ETS and reviewed by the project partners.

[2] European Commission, 2020. *DIGITAL EDUCATION ACTION PLAN 2021-2027*, European Commission. p.7.
[3] European Commission, 2020. *DIGITAL EDUCATION ACTION PLAN 2021-2027*, European Commission. p.10.

EU priorities in the field of Digital Education (focus on Hybrid education) in other languages

(GR, IT, PL, RO)

(GR) Προτεραιότητες της ΕΕ στον τομέα της ψηφιακής εκπαίδευσης (έμφαση στην υβριδική εκπαίδευση)

Για να κατανοήσουμε ποια είναι η προσέγγιση των σημερινών πολιτικών της ΕΕ σχετικά με την "υβριδική επανάσταση" στο σχολείο και την εκπαίδευση, πρέπει να ανατρέξουμε σε 3 βασικά έγγραφα:

- Η ΑΝΑΚΟΙΝΩΣΗ ΤΗΣ ΕΠΙΤΡΟΠΗΣ ΠΡΟΣ ΤΟ ΕΥΡΩΠΑΪΚΟ ΚΟΙΝΟΒΟΥΛΙΟ, ΤΟ ΣΥΜΒΟΥΛΙΟ, ΤΗΝ ΕΥΡΩΠΑΪΚΗ ΟΙΚΟΝΟΜΙΚΗ ΚΑΙ ΚΟΙΝΩΝΙΚΗ ΕΠΙΤΡΟΠΗ ΚΑΙ ΤΗΝ ΕΠΙΤΡΟΠΗ ΤΩΝ ΠΕΡΙΦΕΡΕΙΩΝ ΓΙΑ ΤΗΝ ΕΠΊΤΕΥΞΗ ΤΟΥ ΕΥΡΩΠΑΪΚΟΎ ΧΩΡΟΥ ΕΚΠΑΊΔΕΥΣΗΣ ΈΩΣ ΤΟ 2025,
- Το ΣΧΕΔΙΟ ΔΡΑΣΗΣ ΓΙΑ ΤΗΝ ΨΗΦΙΑΚΗ ΕΚΠΑΙΔΕΥΣΗ 2021-2027,
- ΤΟ ΨΗΦΙΣΜΑ ΤΟΥ ΣΥΜΒΟΥΛΙΟΥ ΓΙΑ ΣΤΡΑΤΗΓΙΚΟ ΠΛΑΙΣΙΟ ΕΥΡΩΠΑΪΚΗΣ ΣΥΝΕΡΓΑΣΙΑΣ ΣΤΗΝ ΕΚΠΑΙΔΕΥΣΗ ΚΑΙ ΤΗΝ ΚΑΤΑΡΤΙΣΗ ΠΡΟΣ ΤΟΝ ΕΥΡΩΠΑΪΚΟ ΧΩΡΟ ΕΚΠΑΙΔΕΥΣΗΣ ΚΑΙ ΜΕΤΑΞΥ ΤΟΥ (2021-2030).

Η **ΑΝΑΚΟΙΝΩΣΗ ΤΗΣ ΕΠΙΤΡΟΠΗΣ ΠΡΟΣ ΤΟ ΕΥΡΩΠΑΪΚΟ ΚΟΙΝΟΒΟΥΛΙΟ, ΤΟ ΣΥΜΒΟΥΛΙΟ, ΤΗΝ ΕΥΡΩΠΑΪΚΗ ΟΙΚΟΝΟΜΙΚΗ ΚΑΙ ΚΟΙΝΩΝΙΚΗ ΕΠΙΤΡΟΠΗ ΚΑΙ ΤΗΝ ΕΠΙΤΡΟΠΗ ΤΩΝ ΠΕΡΙΦΕΡΕΙΩΝ για την επίτευξη του Ευρωπαϊκού Χώρου Εκπαίδευσης έως το 2025** διευκρινίζει ότι οι προσπάθειες της Επιτροπής για την πενταετή περίοδο θα επικεντρωθούν σε 6 κύριους τομείς:

1. Ποιότητα
2. Ένταξη και ισότητα των φύλων
3. Πράσινη και ψηφιακή μετάβαση
4. Δάσκαλοι και εκπαιδευτές
5. Τριτοβάθμια εκπαίδευση
6. Γεωπολιτική διάσταση

Σύμφωνα με όσα προτείνει το έργο STEAME goes HYBRID, η ΑΝΑΚΟΙΝΩΣΗ αναφέρει ότι:

"Η εκπαίδευση και η κατάρτιση σε όλα τα επίπεδα θα πρέπει να εφοδιάζουν τους ανθρώπους με τις ψηφιακές δεξιότητες, αλλά και με άλλες ικανότητες, όπως η επιχειρηματικότητα και η

εκμάθηση της μάθησης, οι οποίες είναι απαραίτητες για την πλοήγηση στην αγορά εργασίας που μετασχηματίζεται από την τεχνολογική αλλαγή."[4]

Ωστόσο, δε γίνεται ειδική αναφορά σε υβριδικά πλαίσια.

Το **σχέδιο δράσης για την ψηφιακή εκπαίδευση (2021-2027)** αναφέρει ελάχιστα τα υβριδικά πλαίσια:

"Σύμφωνα με τους ερωτηθέντες, η ψηφιακή τεχνολογία θα πρέπει να ενσωματωθεί στο σύστημα εκπαίδευσης και κατάρτισης με βάση ένα συνεπές σύνολο προτύπων και κατευθυντήριων γραμμών ποιότητας, εξασφαλίζοντας τον κατάλληλο συνδυασμό ψηφιακών και δια ζώσης μαθησιακών εμπειριών. Παρόλο που θεωρούσαν την αλληλεπίδραση πρόσωπο με πρόσωπο ζωτικής σημασίας, πολλοί ερωτηθέντες αναμένουν ότι η κρίση θα επιταχύνει τη μετάβαση σε μικτή ή υβριδική εκπαίδευση και κατάρτιση".[5]

"Ο αποτελεσματικός σχεδιασμός και η ανάπτυξη της ψηφιακής ικανότητας είναι ζωτικής σημασίας για τα συστήματα εκπαίδευσης και κατάρτισης. Αυτό απαιτεί την ανάπτυξη και τη συνεχή αναθεώρηση και επικαιροποίηση ψηφιακών στρατηγικών που να αντιμετωπίζουν τα τεχνολογικά κενά σε υποδομές, συσκευές και την ανάπτυξη των σχετικών οργανωτικών ικανοτήτων στην εκπαίδευση, συμπεριλαμβανομένης της ικανότητας παροχής υβριδικών τρόπων μάθησης και διδασκαλίας (εξ αποστάσεως και επιτόπου)."[6]

Στο **ΨΗΦΙΣΜΑ ΤΟΥ ΣΥΜΒΟΥΛΙΟΥ ΓΙΑ ΣΤΡΑΤΗΓΙΚΟ ΠΛΑΙΣΙΟ ΕΥΡΩΠΑΪΚΗΣ ΣΥΝΕΡΓΑΣΙΑΣ ΣΤΗΝ ΕΚΠΑΙΔΕΥΣΗ ΚΑΙ ΤΗΝ ΚΑΤΑΡΤΙΣΗ ΠΡΟΣ ΤΟΝ ΕΥΡΩΠΑΪΚΟ ΧΩΡΟ ΕΚΠΑΙΔΕΥΣΗΣ ΚΑΙ ΜΕΤΑΞΥ ΤΟΥ (2021-2030),** αν και το θέμα της ψηφιοποίησης λαμβάνεται ευρέως υπόψη, δεν γίνεται καμία αναφορά στα υβριδικά πλαίσια.

Συμπερασματικά, είναι σαφές ότι δεν έχει αναπτυχθεί ακόμη ένα συγκεκριμένο πλαίσιο πολιτικής σε επίπεδο ΕΕ για να καλύψει και να καθοδηγήσει τη διαδικασία καινοτομίας που αντιπροσωπεύει η υβριδική διδασκαλία και μάθηση και να παρακολουθήσει τις επιπτώσεις που θα έχει στα εκπαιδευτικά συστήματα της ΕΕ.

Η έλλειψη ειδικών πολιτικών είναι ένας από τους κύριους λόγους για τους οποίους το έργο STEAME goes HYBRID κατέβαλε προσπάθειες για την ανάπτυξη του παρόντος εγγράφου.

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[4] Ευρωπαϊκή Επιτροπή, 2020. *ΑΝΑΚΟΙΝΩΣΗ ΤΗΣ ΕΠΙΤΡΟΠΗΣ ΠΡΟΣ ΤΟ ΕΥΡΩΠΑΪΚΟ ΚΟΙΝΟΒΟΥΛΙΟ, ΤΟ ΣΥΜΒΟΥΛΙΟ, ΤΗΝ ΕΥΡΩΠΑΪΚΗ ΟΙΚΟΝΟΜΙΚΗ ΚΑΙ ΚΟΙΝΩΝΙΚΗ ΕΠΙΤΡΟΠΗ ΚΑΙ ΤΗΝ ΕΠΙΤΡΟΠΗ ΤΩΝ ΠΕΡΙΦΕΡΕΙΩΝ σχετικά με την επίτευξη του Ευρωπαϊκού Χώρου Εκπαίδευσης έως το 2025*. σελ. 9.

[5] Ευρωπαϊκή Επιτροπή, 2020. *ΣΧΕΔΙΟ ΔΡΑΣΗΣ ΓΙΑ ΤΗΝ ΨΗΦΙΑΚΗ ΕΚΠΑΙΔΕΥΣΗ 2021-2027*, Ευρωπαϊκή Επιτροπή, σ. 7.

[6] Ευρωπαϊκή Επιτροπή, 2020. *ΣΧΕΔΙΟ ΔΡΑΣΗΣ ΓΙΑ ΤΗΝ ΨΗΦΙΑΚΗ ΕΚΠΑΙΔΕΥΣΗ 2021-2027*, Ευρωπαϊκή Επιτροπή, σ. 10.

(IT) Priorità dell'UE nel campo dell'istruzione digitale (focus sull'istruzione ibrida)

Per capire quale sia l'approccio delle attuali politiche dell'UE alla "rivoluzione ibrida" nella scuola e nell'istruzione, dobbiamo fare riferimento a 3 documenti principali:

- La COMUNICAZIONE DELLA COMMISSIONE AL PARLAMENTO EUROPEO, AL CONSIGLIO, AL COMITATO ECONOMICO E SOCIALE EUROPEO E AL COMITATO DELLE REGIONI sulla realizzazione dello Spazio europeo dell'istruzione entro il 2025;
- Il PIANO D'AZIONE PER L'EDUCAZIONE DIGITALE 2021-2027;
- La RISOLUZIONE DEL CONSIGLIO SU UN QUADRO STRATEGICO PER LA COOPERAZIONE EUROPEA IN MATERIA DI ISTRUZIONE E FORMAZIONE VERSO LO SPAZIO EUROPEO DELL'ISTRUZIONE E OLTRE (2021-2030).

La **COMUNICAZIONE DELLA COMMISSIONE AL PARLAMENTO EUROPEO, AL CONSIGLIO, AL COMITATO ECONOMICO E SOCIALE EUROPEO E AL COMITATO DELLE REGIONI sulla realizzazione dello Spazio europeo dell'istruzione entro il 2025** chiarisce che gli sforzi della Commissione per il quinquennio si concentreranno su 6 aree principali:

7. Qualità
8. Inclusione e parità di genere
9. Transizione verde e digitale
10. Insegnanti e formatori
11. Istruzione superiore
12. Dimensione geopolitica

In linea con quanto proposto dal progetto STEAME goes HYBRID, la COMUNICAZIONE afferma che:

"L'istruzione e la formazione a tutti i livelli dovrebbero dotare le persone delle competenze digitali, ma anche di altre competenze, come l'imprenditorialità e l'imparare a imparare, necessarie per navigare nel mercato del lavoro trasformato dai cambiamenti tecnologici."[7]

Tuttavia, non viene fatta alcuna menzione specifica dei contesti ibridi.

[7] Commissione europea, 2020. *COMUNICAZIONE DELLA COMMISSIONE AL PARLAMENTO EUROPEO, AL CONSIGLIO, AL COMITATO ECONOMICO E SOCIALE EUROPEO E AL COMITATO DELLE REGIONI sulla realizzazione dello spazio europeo dell'istruzione entro il 2025*. p.9.

Il **Piano d'azione per la formazione digitale (2021-2027)** menziona solo marginalmente i contesti ibridi:

"Secondo gli intervistati, la tecnologia digitale dovrebbe essere integrata nel sistema di istruzione e formazione sulla base di un insieme coerente di standard e linee guida di qualità, garantendo un'adeguata combinazione di esperienze di apprendimento digitali e faccia a faccia. Pur ritenendo fondamentale l'interazione faccia a faccia, molti intervistati si aspettano che la crisi acceleri il passaggio all'istruzione e alla formazione mista o ibrida".[8]

"Un'efficace pianificazione e sviluppo delle capacità digitali è fondamentale per i sistemi di istruzione e formazione. Ciò richiede lo sviluppo e la revisione e l'aggiornamento continui di strategie digitali che affrontino le lacune tecnologiche in termini di infrastrutture, dispositivi e sviluppo di capacità organizzative rilevanti nel campo dell'istruzione, compresa la capacità di fornire modalità ibride di apprendimento e insegnamento (a distanza e in loco)".[9]

Nella **RISOLUZIONE DEL CONSIGLIO SU UN QUADRO STRATEGICO PER LA COOPERAZIONE EUROPEA IN MATERIA DI ISTRUZIONE E FORMAZIONE VERSO LO SPAZIO EUROPEO DELL'ISTRUZIONE E OLTRE (2021-2030),** sebbene il tema della digitalizzazione sia ampiamente preso in considerazione, non si fa menzione dei contesti ibridi.

In conclusione, è chiaro che non è stato ancora sviluppato un quadro specifico a livello europeo per guidare il processo di innovazione rappresentato dall'insegnamento e dall'apprendimento ibrido e per monitorare gli effetti che questo avrà sui sistemi educativi dell'UE.

La mancanza di politiche dedicate è una delle ragioni principali che hanno spinto il progetto STEAME goes HYBRID a sviluppare questo documento.

[8] Commissione europea, 2020. *PIANO D'AZIONE PER L'EDUCAZIONE DIGITALE 2021-2027*, Commissione europea. p.7.
[9] Commissione europea, 2020. *PIANO D'AZIONE PER L'EDUCAZIONE DIGITALE 2021-2027*, Commissione europea. p.10.

(PL) Priorytety UE w obszarze edukacji cyfrowej (koncentracja na edukacji hybrydowej)

Aby zrozumieć, jakie podejście do „rewolucji hybrydowej" w szkole i edukacji mają obecne polityki UE, musimy odwołać się do 3 głównych dokumentów:

- COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on achieving the European Education Area by 2025;
- DIGITAL EDUCATION ACTION PLAN 2021-2027;
- COUNCIL RESOLUTION ON A STRATEGIC FRAMEWORK FOR EUROPEAN COOPERATION IN EDUCATION AND TRAINING TOWARDS THE EUROPEAN EDUCATION AREA AND BEYOND (2021-2030).

KOMUNIKAT KOMISJI PRZY PARLAMENCIE EUROPEJSKIM, RADY, EUROPEJSKIEGO KOMITETU EKONOMICZNO-SPOŁECZNEGO I KOMITETU REGIONÓW w sprawie utworzenia Europejskiego Obszaru Edukacji do 2025 r. wyjaśnia, że wysiłki komisji w okresie pięciu lat będą koncentrować się na 6 głównych obszarach:

1. Jakość
2. Integracja i równość płci
3. Zielona i cyfrowa transformacja
4. Nauczyciele i trenerzy
5. Szkolnictwo wyższe
6. Wymiar geopolityczny

Zgodnie z propozycją projektu STEAME GOES HYBRID, KOMUNIKAT ten stwierdza, że:

"Edukacja i szkolenia na wszystkich poziomach powinny wyposażać ludzi w umiejętności cyfrowe, ale także w inne kompetencje, takie jak przedsiębiorczość i umiejętność uczenia się, które są potrzebne do poruszania się na rynku pracy przekształconym przez zmiany technologiczne."[10]

Jednak nie ma szczególnej wzmianki o kontekstach hybrydowych.

[10] Komisja Europejska, 2020. KOMUNIKAT KOMISJI PRZY PARLAMENTCIE EUROPEJSKIM, RADY, EUROPEJSKIEGO KOMITETU EKONOMICZNO-SPOŁECZNEGO I KOMITETU REGIONÓW w sprawie utworzenia Europejskiego Obszaru Edukacji do 2025 r. str.9.

Plan Działania w Zakresie Edukacji Cyfrowej (2021-2027) wspomina o kontekstach hybrydowych tylko marginalnie:

"*Zdaniem respondentów technologia cyfrowa powinna zostać włączona do systemu kształcenia i szkolenia w oparciu o spójny zestaw norm i wytycznych dotyczących jakości, zapewniając odpowiednią kombinację doświadczeń związanych z nauką cyfrową i bezpośrednią. Chociaż wielu respondentów uważało bezpośrednie interakcje za kluczowe, wielu respondentów spodziewa się, że kryzys przyspieszy przejście na kształcenie i szkolenie mieszane lub hybrydowe*."[11]

"*Skuteczne planowanie i rozwijanie zdolności cyfrowych ma zasadnicze znaczenie dla systemów kształcenia i szkolenia. Wymaga to opracowywania oraz ciągłego przeglądu i aktualizacji strategii cyfrowych w celu wyeliminowania luk technologicznych w infrastrukturze, urządzeniach i rozwijania odpowiednich zdolności organizacyjnych w edukacji, w tym zdolności do zapewniania hybrydowych trybów uczenia się i nauczania (na odległość i na miejscu).*"[12]

W REZOLUCJI RADY W SPRAWIE STRATEGICZNYCH RAM WSPÓŁPRACY EUROPEJSKIEJ W DZIEDZINIE EDUKACJI I SZKOLENIA W KIERUNKU EUROPEJSKIEGO OBSZARU EDUKACJI (2021-2030), choć szeroko uwzględnia się kwestię cyfryzacji, nie wspomina się o kontekstach hybrydowych.

Podsumowując, jasne jest, że na poziomie UE nie opracowano jeszcze konkretnych ram politycznych, które obejmowałyby proces innowacyjny reprezentowany przez hybrydowe nauczanie i uczenie się i kierowałyby nim, a także monitorowałyby skutki, jakie będzie to miało dla systemów edukacji w UE.

Brak dedykowanych zasad jest jednym z głównych powodów wysiłków, jakie projekt STEAME GOES HYBRID włożył w opracowanie tego dokumentu.

[11] Komisja Europejska, 2020. PLAN DZIAŁAŃ W DZIEDZINIE CYFROWEJ EDUKACJI NA LATA 2021-2027, Komisja Europejska. str. 7.
[12] Komisja Europejska, 2020. PLAN DZIAŁAŃ W DZIEDZINIE CYFROWEJ EDUKACJI NA LATA 2021-2027, Komisja Europejska. str. 10.

(RO) Prioritățile UE în domeniul educației digitale (accent pe educația hibridă)

Pentru a înțelege abordările actuale ale politicilor UE cu privire la „revoluția hibridă" în școală și educație, ne referim la trei documente principale:

- The COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on achieving the European Education Area by 2025;
- The DIGITAL EDUCATION ACTION PLAN 2021-2027;
- The COUNCIL RESOLUTION ON A STRATEGIC FRAMEWORK FOR EUROPEAN COOPERATION IN EDUCATION AND TRAINING TOWARDS THE EUROPEAN EDUCATION AREA AND BEYOND (2021-2030).

Primul, The COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on achieving the European Education Area by 2025 (COMUNICAREA DE LA COMISIE CĂTRE PARLAMENTUL EUROPEAN, CONSILIU, COMITETUL ECONOMICO ŞI SOCIAL EUROPEAN ŞI COMITETUL REGIUNILOR privind realizarea Spaţiului European al Educaţiei până în 2025) clarifică faptul că eforturile comisiei pentru perioada de cinci ani vor fi concentrate pe 6 domenii principale:

1. Calitate
2. Incluziunea și egalitatea de gen
3. Tranziție verde și digitală
4. Profesori și formatori
5. Studii superioare
6. Dimensiunea geopolitică

În concordanță cu propunerile proiectului STEAME goes HYBRID, acest document precizează că:

> „Educația și formarea la toate nivelurile ar trebui să doteze oamenii cu abilități digitale, dar și cu alte competențe, cum ar fi antreprenoriatul și învățarea strategiilor de învățare, care sunt necesare pentru a se adapta pe piața muncii transformată de schimbările tehnologice." [13]

[13] European Commission, 2020. *COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on achieving the European Education Area by 2025*. p.9.

Cu toate acestea, nu se face nicio mențiune specifică pentru contextele hibride.

The **Digital Education Action Plan (***Planul de acțiune pentru educația digitală 2021-2027) menționează doar marginal contexte hibride:*

> *„Potrivit respondenților, tehnologia digitală ar trebui integrată în sistemul de educație și formare pe baza unui set consistent de standarde și linii directoare de calitate, asigurând un mix adecvat de experiențe de învățare digitală și față în față. Deși au considerat interacțiunea față în față ca fiind vitală, mulți respondenți se așteaptă ca efectele crizei să accelereze trecerea la educație și formare mixtă sau hibridă."* [14]

> *„Planificarea și dezvoltarea eficientă a capacității digitale este vitală pentru sistemele de educație și formare. Acest lucru necesită dezvoltarea și revizuirea și actualizarea continuă a strategiilor digitale care abordează lacunele tehnologice în infrastructură, dispozitive și dezvoltarea capacităților organizaționale relevante în educație, inclusiv capacitatea de a oferi moduri hibride de învățare și predare (la distanță și la fața locului)."* [15]

În *COUNCIL RESOLUTION ON A STRATEGIC FRAMEWORK FOR EUROPEAN COOPERATION IN EDUCATION AND TRAINING TOWARDS THE EUROPEAN EDUCATION AREA AND BEYOND (2021-2030* (*REZOLUȚIA CONSILIULUI PRIVIND UN CADRUL STRATEGIC PENTRU COOPERARE EUROPEANĂ ÎN EDUCAȚIA ȘI FORMAREA ÎN VEDEREA SPAȚULUI EUROPEAN DE EDUCAȚIE ȘI ÎN AFARA LUI 2021-2030*), deși problema digitizării este luată în considerare pe scară largă, nu se face nicio mențiune despre contexte hibride.

În concluzie, este clar că la nivelul UE nu a fost elaborat încă un cadru politic specific care să acopere și să ghideze procesul de inovare reprezentat de predarea și învățarea hibridă și să monitorizeze efectele pe care aceasta le va avea asupra sistemelor de învățământ din UE.

Lipsa politicilor dedicate este unul dintre principalele motive din spatele eforturilor depuse de proiectul *STEAME goes HYBRID* în dezvoltarea acestui document**.**

[14] European Commission, 2020. *DIGITAL EDUCATION ACTION PLAN 2021-2027*, European Commission. p.7.
[15] European Commission, 2020. *DIGITAL EDUCATION ACTION PLAN 2021-2027*, European Commission. p.10.

Stakeholders' consultation and final release

Subsequently, a consultation phase was implemented, involving relevant stakeholders in the school sector.

In specific, the feedback of forty (40) stakeholders (teachers, policy makers, students, etc.) was collected and analyzed through an online questionnaire or through on-paper questionnaires distributed during the multiplier events. For the results of the consultation refer to ANNEX II.

Their feedback was analyzed and included in the final version of the Policy Recommendations.

Design of the STEAME Hybrid School Label

The STEAME Hybrid School Label is a comprehensive certification program developed by the project consortium to assess and endorse schools' readiness in implementing hybrid education and executing STEAME activities effectively. The program aims to certify schools' dedication to providing high-quality digital education to their students.

To obtain the STEAME Hybrid Label, schools must undergo a comprehensive self-evaluation process to assess their digital performance in the context of hybrid education. The process involves students and teachers completing a self-assessment exercise focusing on six distinct groups of criteria: Leadership, Collaboration and Networking, Infrastructure and Equipment, Adaptive Competence of Teachers/Professional Development, Pedagogy: Supports, Resources, Implementation and Assessment, and Student Digital Competence.

The consortium has developed a tracking method linked to the competence framework and training resources developed in Intellectual Output 1 and Intellectual Output 2 to measure schools' progress in meeting the eligibility criteria. The training resources and competence framework aim to support schools in enhancing their digital performance, adapting to the evolving landscape of modern education, and providing high-quality digital education to their students.

The STEAME Hybrid Label program is structured as a two-stage certification process. The first self-assessment exercise identifies areas for improvement and promotes an action plan for enhancing schools' digital performance regarding the identified criteria. Schools can upload their self-assessment results and action plan using an online tool provided with templates. The results of this self-assessment form the basis for the issuance of the STEAME Hybrid Label - Stage 1.

After a minimum of three months, schools must conduct the self-assessment exercise again and submit the results with an improvement report, evidence of concrete changes, and a

sustainability plan supporting the improvement. The consortium evaluates the application and grants the full STEAME Hybrid School Label, valid for three years.

If the initial self-assessment indicates that the school does not need improvement, the school can apply directly for the full STEAME Hybrid School Label by submitting the results of their self-assessment, along with a sustainability plan and evidence of sustainability actions.

The STEAME Hybrid School Label program is designed to help schools evaluate their digital performance, identify areas for improvement, and promote concrete actions for enhancing their digital readiness. The program enables schools to showcase their commitment to providing high-quality digital education to their students and adapt to the evolving landscape of modern education.

Schools with an interest in the STEAME Hybrid School Label can find more information and express their interest on the project's website. The Full Label certification is valid for three years, after which schools can apply for renewal by submitting a sustainability plan with evidence of their current readiness status.

(EN) POLICY RECOMMENDATIONS

Executive Summary

Developed by the STEAME GOES HYBRID project, these policy recommendations have these aims:

- Provision of a basis for public discourse and a foundation for strategic policy development on how to harness the hybridization in a systematic way towards the full implementation of the EU Education Area.
- Better understanding of EU and country level policy makers on the challenges and needs of schools, teachers and students, with a specific focus on digital transition and hybrid learning environments.
- Contribution to the identification of priorities and the development of regulations able to support hybrid schools.
- Creation of new strategic visions for modern school institutions at the aftermath of the pandemic and the emergency brought into the educational systems.
- Contribution to the definition of new learning spaces shaped by digital and hybrid formulas, enhancing accessibility and inclusiveness of educational provision.
- Setting of the ground for stronger EU peer learning in the context of digitalization in schools.
- Raised public awareness on the implications of digital readiness for school communities, providing evidence-based input.

The project has identified recommendations in 5 main areas:

1. Support to teachers *must be continuous and multidimensional.*

- **Life-long learning and continuous professional development must be feasible to all teachers.**
- **Continuous support and feedback to teachers must be provided.**
- **Teachers must be supported in collective educational experiences skills.**
- **English language basic understanding by teachers must be supported.**

2. Multidisciplinary and interdisciplinary collaboration *and new assessment methods must be promoted, overcoming the old single-teacher and single-discipline paradigms.*

- **The hybrid context is a multidisciplinary and interdisciplinary context, and it must be treated as such.**
- **New ways of assessing the students' learning level need to be introduced.**
- **The key role of Higher Education.**

3. Strategic planning and accessibility *should be regarded essential elements in the hybrid school.*

- **Strategic planning of schedules and settings is a key factor in hybrid schools.**
- **Accessibility to all should be promoted as a key value and basic standard.**

4. Motivation and commitment *at different levels must be promoted and supported.*

- **School managers' motivation and commitment must be supported, also by introducing HYBRYD SSCHOOL certifications.**
- **Teachers' motivation must be supported to achieve the hybrid transition.**
- **Learners' motivation and participation must be supported to achieve the hybrid transition.**
- **Parents must be reassured and informed about the hybrid transition.**

5. Transition plans *to the hybrid school must be promoted, also with a view to supporting the necessary infrastructural adaptation.*

- **Standardized digital transition plans to guide school managers should be developed.**

- **Classes – Schools – Educational System: synergy and coordination are needed.**
- **Infrastructural renovation should be funded to put the basis for the transition to the hybrid environment.**
- **The COVID 19 emergency represented a forced boost for the digital and hybrid transition, but it can't be its horizon. The Hybrid school is the school of the future.**

Policy recommendations implemented by the STEAME goes HYBRID Project

The project has identified recommendations in 5 main areas:

1. **<u>Support to teachers must be continuous and multidimensional.</u>**

Life-long learning and continuous professional development should be feasible to all teachers.

The importance of continuous learning has been stressed several times in many policy documents. At the same time, teachers often find it impossible to develop professionally by following new courses because they do not have the time to do so. To support the feasibility and effectiveness of those courses, teachers should be guaranteed the necessary time and resources. Otherwise, the concept of life-long learning will only remain on paper but will not have a real impact on the education system in Europe.[16]

Continuous support and feedback to teachers should be provided.

Teachers, even when they have the digital skills necessary to use the tools made available to them, need guidance and feedback on how to apply project-based learning in a hybrid environment. Teachers should receive continuous support in implementing the hybrid STEAME approach. [17] Also, promotion of hybrid teaching and learning among teachers and students should be fostered and both should be allowed to test hybrid learning environments before adopting them. Teachers should also be supported in terms of teaching methodologies and learning design. Research needs to be conducted to establish a grounding methodology and good practices should be made available to teachers to support them in their everyday practice.

[16] In line with European Council, 2021. *Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030) - Strategic priority 2: Making lifelong learning and mobility a reality for all*. European Council, p.11.

[17] In line with European Commission, 2020. *DIGITAL EDUCATION ACTION PLAN 2021-2027*- 4.1 Strategic priority 1: Fostering the development of a high-performing digital education ecosystem, *Digital education content and training in digital skills – including digital teaching methods – will be essential for staff*, European Commission. p.10.

Teachers should be supported in collective educational experiences skills.

Very often, in the context of hybrid education as in the traditional one, the focus of the intervention is targeted at the single student. The collective component of the learning experience is not given sufficient importance. The focus on individual learning / teaching does not take into account the group dynamics which instead strongly influence the students' approach, their attention span, their performance, etc. For this reason, teachers' competences should be supported in the direction of giving them the methods and tools to know, guide and make the best use of the collective dynamics of hybrid settings. In general, the hybrid learning approach should be seen as a new teaching and learning method rather than an ad hoc solution to a crisis situation.

English language basic understanding by teachers should be supported.

A large part of the teachers in the EU do not speak English. At the same time, a large part of the resources available to them to hybridize their settings and their teaching methods (digital tools, methodologies, training, etc.) are in English. For this reason, training on basic English should be included in the continuous professional development of teachers. This way, the exploitation of resources already available - but very often not sufficiently widespread due to language barriers - would be maximized. This may also facilitate their internationalization and networking cooperation.

2. Multidisciplinary and interdisciplinary collaboration and new assessment methods must be promoted, overcoming the old single-teacher and single-discipline paradigms.

The hybrid context is a multidisciplinary and interdisciplinary context, and it must be treated as such.

The adaptation of educational content to hybrid contexts requires time and, above all, technical skills that very often are not mastered by teachers. For example, the digitization of content, the preparation of online platforms, the solution of technical (IT) problems, etc. In this sense, the hybrid approach requires a multi-disciplinary contribution that sees, among others, the participation of teachers, IT technicians, experts in online education, etc. At the same time, students also need dedicated staff who know how to follow them in the transition to hybrid education. Moreover, project-based learning requires the involvement of teachers of different disciplines and areas, who know how to overcome the old single-discipline paradigm. Furthermore, the co-presence of teachers of different disciplines, potentially from different

schools, requires adequate time dedicated to plan and co-create activities. For this reason, the creation of multidisciplinary teams should be supported and become structural, in order to supplement, by complementing them, the shortcomings of the individual teaching methods.

New ways of assessing the students' learning level needs to be introduced

Evaluating students based on individual exams is a paradigm that needs to change. The hybrid approach is, as mentioned, multidisciplinary, linked to motivation, often collective. Therefore, this type of assessment no longer makes sense and should instead be replaced by a more comprehensive assessment of the student's portfolio. For this reason, it is essential that teachers - and the school system in general - are supported in the identification of new assessment methods, more suitable for hybrid settings.

The key role of Higher Education

As responsible for the training of future teachers, higher education institutes play a key role in the digital transition of the education system. For this reason, it is essential that higher education supports problem-based learning, by placing it alongside more conventional approaches. Future teachers' training should focus above all on practice and less on theory, especially when it comes to preparation for hybrid contexts. In particular, school-university partnership should be promoted to:

- Develop community of practices among pre-service and in service teachers;
- Provide a framework for teachers in school during the practicum (with a focus on Steame Education);
- Establish a monitoring/assessment mechanism for these partnerships.

3. Strategic planning and accessibility should be regarded essential elements in the hybrid school.

Strategic planning of schedules and settings is a key factor in hybrid schools.

The need to involve a multidisciplinary team and to have a setting that positively considers and uses the collective dynamics necessarily require a change in schools' schedule. It is necessary that teachers on the one hand and students on the other have the possibility to adapt their schedules in a flexible way, according to the needs of the specific project. At the same time, the class

environment must be rethought and adapted according to the needs of the project. The physical and virtual space must be compatible; they must communicate in a way that is functional to teaching. For this reason, it is necessary to reform the monolithic and outdated approach which sets, a priori, pre-established times and spaces for teaching.

Accessibility to all should be promoted as a key value and basic standard.

All educational contexts must also be accessible to people with special needs, including people with disabilities. Utmost attention should be paid to this aspect even in hybrid education. For this reason, minimum accessibility criteria should be produced and promoted through specific guidelines and regulations. Dedicated support should be given to make both physical and digital spaces accessible, only in this way can hybrid education be truly accessible to all. [18]

4. Motivation and commitment at different levels must be promoted and supported

School managers' motivation and commitment must be supported, also by introducing HYBRYD school certifications.

The transition to hybrid teaching can't do without the motivation of individual school managers and individual schools. This aspect must be considered as important as economic resources. Without one of the two elements, the transition to the hybrid cannot take place. For this reason, it is important to create labels, standardized and internationally recognized, which certify the level reached by the individual school in the transition and / or the explicit commitment that the same has signed with respect to the persecution of specific objectives towards the transition. In this way, the school that undertakes to invest its resources in the transition would receive feedback in terms of visibility and an evident improvement in the quality of its offer. In turn, this would enhance the economic sustainability of the school itself.

[18] In line with European Commission, 2020. *COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on achieving the European Education Area by 2025 - 3.2 Making education and training more inclusive and gender sensitive*. European Commission, p.14.
In line with European Commission, 2020. *DIGITAL EDUCATION ACTION PLAN 2021-2027 - 4.1 Strategic priority 1: Fostering the development of a high-performing digital education ecosystem*. European Commission. p.10
In line with European Council, 2021. *Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030) - Strategic priority 1: Improving quality, equity, inclusion and success for all in education and training*. European Council, p.9.

Teachers' motivation must be supported to achieve the hybrid transition.

The motivation of teachers and their adherence to the hybrid transition plans of schools is another key element. It must be taken into account that often the widespread tendency among teachers is to oppose the change in teaching plans and the introduction of new tools. Sometimes, the introduction of novelties is seen as a strong demand for time and resources in the face of poor results. For this reason, teachers' commitment should be encouraged. Teachers must receive the necessary support and dedicated coaching to help them understand purposes and objectives of the innovations introduced. "Hybrid transition coaches" could be appointed within schools to provide information and tutoring to teachers who need it, to reduce anxiety about change.[19] To a certain extent, also financial incentives could support teachers' commitment.

Learners' motivation and participation must be supported to achieve the hybrid transition.

Interdisciplinary approaches, collective teaching contexts and hybrid environments can potentially represent elements that increase the distance between the learners and their teachers, their peers, the training contents. In the same way, however, they can represent an unmissable opportunity to shorten these distances. It is therefore essential not to leave anyone behind. For this reason, the individualization of educational programs, the identification of training courses with adaptable objectives, the support to the co-creation and peer support among students must be stimulated and included in the educational plans themselves.[20]

Parents must be reassured and informed about the hybrid transition.

Parents play a crucial role in the upbringing of their children. They need to be informed about the changes brought about by hybrid settings, reassured about the potential risks, and informed about the possible benefits. Communication with parents must be maintained and they should be accompanied step by step. Parents involvement should aim at two objectives: Provide parents with information on the use of hybrid environments in school activities and allow them to play a more active role in guiding their children when they are home.

[19] In line with profession European Commission, 2020. *COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on achieving the European Education Area by 2025 - 3.4 Enhancing competence and motivation in the education.* p.18.

[20] A good practice on this is represented by the STEAME STUDENTS project.

Hybrid ambassadors, trained in the use of hybrid settings and in training and supporting other stakeholders, should be involved. These ambassadors could be the focal point for supporting school leaders, teachers, students and parents.

5. **Transition plans to the hybrid school must be promoted, also with a view to supporting the necessary infrastructural adaptation.**

Standardized digital transition plans to guide school managers should be developed.

The adoption of digital transformation plans that take into account the infrastructural transition should be promoted in all schools at the EU level. At the same time, it is important that these plans are relatively standardized and shared, in order to provide school managers with concrete guides to refer to and practical tools to put in place. This way, a concrete response to the technical requirements of schools could be more easily planned and concretely implemented.

Classes – Schools – Educational System: synergy and coordination are needed.

The efforts of the single school should be aligned with a common transition framework, planned, monitored and verified at the higher level. The introduction of hybrid contexts will have / is having a strong impact on the educational system and can't be faced in a fragmented and disjointed way. Policy makers and regulations should provide strong coordination, shared protocols, discussion tables in which schools can discuss with their peers and with regional or ministerial stakeholders. Sinergy among classes and schools is often difficult to achieve because of the phenomenon of "class isolation". This has to be considered and tackled (e.g. by putting in place local communities of practice) to transfer knowledge and practices. Furthermore, the national curricula programs should allow and promote the use of hybrid learning.

Infrastructural renovation should be funded to put the basis for the transition to the hybrid environment.

Hybrid education cannot ignore some fundamental basic conditions. Stable internet connections, electronic devices, fully equipped classrooms/laboratories, digitalized learning material and other minimum requirements are essential elements, without which hybrid education is not possible. Nevertheless, especially in rural contexts, these are often absent or insufficient. Also, licensed platform and tools are often inaccessible to schools with a low budget. For this reason, sufficient economic resources should be made available to guarantee the minimum infra-

structural levels on which to build the hybrid school of the future.[21] Schools should be provided with funding guidance, links/sources/funding organizations contacts both at national and EU level.

The COVID 19 emergency represented a forced boost for the digital and hybrid transition, but it can't be its horizon. The Hybrid school is the school of the future.

The COVID 19 emergency has forced many schools to accelerate the digitization and hybridization of their activities in an unexpected and abrupt way. In order not to waste the efforts made by schools, teachers, students and institutions in this period, it is necessary to ensure that this leap forward becomes structural. That is, we need to get out of the emergency perspective and enter into that of planning.

[21] In line with European Council, 2021. *Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030) - Strategic priority 5: Supporting the green and digital transitions in and through education and training*. European Council, p.16.

ANNEX I

Policy Recommendations in Other Languages

(GR, IT, PL, RO)

(GR) ΣΥΣΤΑΣΕΙΣ ΠΟΛΙΤΙΚΗΣ

Περίληψη

Αυτές οι συστάσεις πολιτικής που αναπτύχθηκαν από το έργο STEAME GOES HYBRID έχουν τους εξής στόχους:

- Παροχή μιας βάσης για δημόσιο διάλογο και ενός θεμελίου για τη χάραξη στρατηγικής πολιτικής σχετικά με τον τρόπο αξιοποίησης της υβριδοποίησης με συστηματικό τρόπο για την πλήρη υλοποίηση του εκπαιδευτικού χώρου της ΕΕ.
- Καλύτερη κατανόηση των προκλήσεων και των αναγκών των σχολείων, των εκπαιδευτικών και των μαθητών από τους υπεύθυνους χάραξης πολιτικής σε επίπεδο ΕΕ και χωρών, με ιδιαίτερη έμφαση στην ψηφιακή μετάβαση και τα υβριδικά περιβάλλοντα μάθησης.
- Συμβολή στον προσδιορισμό των προτεραιοτήτων και την ανάπτυξη κανονισμών ικανών να υποστηρίξουν τα υβριδικά σχολεία.
- Δημιουργία νέων στρατηγικών οραμάτων για τα σύγχρονα σχολικά ιδρύματα στον απόηχο της πανδημίας και της έκτακτης ανάγκης που επέφερε στα εκπαιδευτικά συστήματα.
- Συμβολή στον ορισμό νέων μαθησιακών χώρων που διαμορφώνονται με ψηφιακές και υβριδικές φόρμουλες, ενισχύοντας την προσβασιμότητα και τη συμμετοχικότητα της εκπαιδευτικής παροχής.
- Θέτει τις βάσεις για ισχυρότερη αλληλοδιδακτική μάθηση στην ΕΕ στο πλαίσιο της ψηφιοποίησης στα σχολεία.
- Αύξησε την ευαισθητοποίηση του κοινού σχετικά με τις επιπτώσεις της ψηφιακής ετοιμότητας στις σχολικές κοινότητες, παρέχοντας τεκμηριωμένη συμβολή.

Το έργο προσδιόρισε συστάσεις σε 5 κύριους τομείς:

1. Η υποστήριξη των εκπαιδευτικών πρέπει να είναι συνεχής και πολυδιάστατη.

- **Η δια βίου μάθηση και η συνεχής επαγγελματική ανάπτυξη πρέπει να είναι εφικτή για όλους τους εκπαιδευτικούς.**

- **Πρέπει να παρέχεται συνεχής υποστήριξη και ανατροφοδότηση στους εκπαιδευτικούς.**
- **Οι εκπαιδευτικοί πρέπει να υποστηρίζονται σε δεξιότητες συλλογικών εκπαιδευτικών εμπειριών.**
- **Πρέπει να υποστηριχθεί η βασική κατανόηση της αγγλικής γλώσσας από τους εκπαιδευτικούς.**

2. *Πρέπει να προωθηθεί* ***η πολυθεματική και διεπιστημονική συνεργασία*** *και οι νέες μέθοδοι αξιολόγησης, ξεπερνώντας τα παλαιά παραδείγματα του ενός καθηγητή και του ενός κλάδου.*

- **Το υβριδικό πλαίσιο είναι ένα πολυθεματικό και διεπιστημονικό πλαίσιο και ως τέτοιο πρέπει να αντιμετωπίζεται.**
- **Πρέπει να εισαχθούν νέοι τρόποι αξιολόγησης του μαθησιακού επιπέδου των μαθητών.**
- **Ο βασικός ρόλος της τριτοβάθμιας εκπαίδευσης.**

3. Ο στρατηγικός σχεδιασμός και η προσβασιμότητα θα πρέπει να θεωρούνται βασικά στοιχεία του υβριδικού σχολείου.

- **Ο στρατηγικός σχεδιασμός των προγραμμάτων και των ρυθμίσεων αποτελεί βασικό παράγοντα στα υβριδικά σχολεία.**
- **Η προσβασιμότητα σε όλους θα πρέπει να προωθηθεί ως βασική αξία και βασικό πρότυπο.**

4. *Πρέπει να προωθηθούν και να υποστηριχθούν τα* ***κίνητρα και η δέσμευση*** *σε διάφορα επίπεδα.*

- **Τα κίνητρα και η δέσμευση των διευθυντών των σχολείων πρέπει να υποστηριχθούν, επίσης με την εισαγωγή των πιστοποιήσεων HYBRID SCHOOL.**
- **Τα κίνητρα των εκπαιδευτικών πρέπει να υποστηριχθούν για να επιτευχθεί η υβριδική μετάβαση.**
- **Τα κίνητρα και η συμμετοχή των εκπαιδευομένων πρέπει να υποστηριχθούν για να επιτευχθεί η υβριδική μετάβαση.**
- **Οι γονείς πρέπει να καθησυχαστούν και να ενημερωθούν για την υβριδική μετάβαση.**

5. *Πρέπει να προωθηθούν* ***σχέδια μετάβασης στο*** *υβριδικό σχολείο, με σκοπό επίσης την υποστήριξη της αναγκαίας προσαρμογής των υποδομών.*

- **Θα πρέπει να αναπτυχθούν τυποποιημένα σχέδια ψηφιακής μετάβασης για την καθοδήγηση των διευθυντών των σχολείων.**
- **Τάξεις - Σχολεία - Εκπαιδευτικό σύστημα: απαιτείται συνέργεια και συντονισμός.**
- **Θα πρέπει να χρηματοδοτηθεί η ανακαίνιση των υποδομών για να τεθεί η βάση για τη μετάβαση στο υβριδικό περιβάλλον.**
- **Η έκτακτη ανάγκη COVID 19 αποτέλεσε μια αναγκαστική ώθηση για την ψηφιακή και υβριδική μετάβαση, αλλά δεν μπορεί να είναι ο ορίζοντας της. Το υβριδικό σχολείο είναι το σχολείο του μέλλοντος.**

Συστάσεις πολιτικής που εφαρμόστηκαν από το έργο STEAME goes HYBRID

Το έργο προσδιόρισε συστάσεις σε 5 κύριους τομείς:

1. **<u>Η στήριξη των εκπαιδευτικών πρέπει να είναι συνεχής και πολυδιάστατη.</u>**

Η δια βίου μάθηση και η συνεχής επαγγελματική ανάπτυξη θα πρέπει να είναι εφικτή για όλους τους εκπαιδευτικούς.

Η σημασία της συνεχούς μάθησης έχει τονιστεί πολλές φορές σε πολλά έγγραφα πολιτικής. Ταυτόχρονα, οι εκπαιδευτικοί συχνά θεωρούν αδύνατο να εξελιχθούν επαγγελματικά παρακολουθώντας νέα μαθήματα, επειδή δεν έχουν το χρόνο να το κάνουν. Για να υποστηριχθεί η σκοπιμότητα και η αποτελεσματικότητα αυτών των μαθημάτων, θα πρέπει να εξασφαλιστεί στους εκπαιδευτικούς ο απαραίτητος χρόνος και οι πόροι. Διαφορετικά, η έννοια της δια βίου μάθησης θα παραμείνει μόνο στα χαρτιά αλλά δεν θα έχει πραγματικό αντίκτυπο στο εκπαιδευτικό σύστημα στην Ευρώπη.[22]

Θα πρέπει να παρέχεται συνεχής υποστήριξη και ανατροφοδότηση στους εκπαιδευτικούς.

Οι εκπαιδευτικοί, ακόμη και όταν διαθέτουν τις απαραίτητες ψηφιακές δεξιότητες για να χρησιμοποιούν τα εργαλεία που τους διατίθενται, χρειάζονται καθοδήγηση και

[22] Σύμφωνα με το Ευρωπαϊκό Συμβούλιο, 2021. *Ψήφισμα του Συμβουλίου σχετικά με ένα στρατηγικό πλαίσιο για την ευρωπαϊκή συνεργασία στον τομέα της εκπαίδευσης και της κατάρτισης με στόχο τον Ευρωπαϊκό Χώρο Εκπαίδευσης και πέραν αυτού (2021-2030) - Στρατηγική προτεραιότητα 2: Η δια βίου μάθηση και κινητικότητα να γίνουν πραγματικότητα για όλους*. Ευρωπαϊκό Συμβούλιο, σ. 11.

ανατροφοδότηση σχετικά με τον τρόπο εφαρμογής της μάθησης βάσει σχεδίων σε ένα υβριδικό περιβάλλον. Οι εκπαιδευτικοί θα πρέπει να λαμβάνουν συνεχή υποστήριξη για την εφαρμογή της υβριδικής προσέγγισης STEAME. [23] Επίσης, θα πρέπει να προωθηθεί η υβριδικής διδασκαλίας και μάθησης μεταξύ των εκπαιδευτικών και των μαθητών και να επιτραπεί και στους δύο να δοκιμάσουν υβριδικά περιβάλλοντα μάθησης πριν τα υιοθετήσουν. Οι εκπαιδευτικοί θα πρέπει επίσης να υποστηρίζονται όσον αφορά τις μεθοδολογίες διδασκαλίας και τον μαθησιακό σχεδιασμό. Πρέπει να διεξαχθούν έρευνες για να καθιερωθεί μια μεθοδολογία θεμελίωσης και οι καλές πρακτικές πρέπει να διατεθούν στους εκπαιδευτικούς για να τους υποστηρίξουν στην καθημερινή τους πρακτική.

Οι εκπαιδευτικοί θα πρέπει να υποστηρίζονται σε δεξιότητες συλλογικών εκπαιδευτικών εμπειριών.

Πολύ συχνά, στο πλαίσιο της υβριδικής εκπαίδευσης, όπως και στην παραδοσιακή, το επίκεντρο της παρέμβασης στοχεύει στον μεμονωμένο μαθητή. Η συλλογική συνιστώσα της μαθησιακής εμπειρίας δεν λαμβάνει επαρκή σημασία. Η εστίαση στην ατομική μάθηση/διδασκαλία δεν λαμβάνει υπόψη τη δυναμική της ομάδας, η οποία αντιθέτως επηρεάζει έντονα την προσέγγιση των μαθητών, την προσοχή τους, την απόδοσή τους κ.λπ. Για το λόγο αυτό, οι ικανότητες των εκπαιδευτικών θα πρέπει να υποστηριχθούν προς την κατεύθυνση να τους δοθούν οι μέθοδοι και τα εργαλεία για να γνωρίζουν, να καθοδηγούν και να αξιοποιούν με τον καλύτερο δυνατό τρόπο τη συλλογική δυναμική των υβριδικών πλαισίων. Γενικά, η προσέγγιση της υβριδικής μάθησης θα πρέπει να θεωρείται ως μια νέα μέθοδος διδασκαλίας και μάθησης και όχι ως μια στιγμιαία (ad hoc) λύση σε μια κατάσταση κρίσης.

Θα πρέπει να υποστηριχθεί η βασική κατανόηση της αγγλικής γλώσσας από τους εκπαιδευτικούς.

Ένα μεγάλο μέρος των εκπαιδευτικών στην ΕΕ δεν μιλάει αγγλικά. Ταυτόχρονα, ένα μεγάλο μέρος των πόρων που έχουν στη διάθεσή τους για να υβριδοποιήσουν το περιβάλλον τους και τις μεθόδους διδασκαλίας τους (ψηφιακά εργαλεία, μεθοδολογίες, κατάρτιση κ.λπ.) είναι στα αγγλικά. Για το λόγο αυτό, η κατάρτιση στα βασικά αγγλικά πρέπει να περιλαμβάνεται στη συνεχή επαγγελματική ανάπτυξη των εκπαιδευτικών. Με αυτόν τον τρόπο, θα μεγιστοποιηθεί

[23] Σύμφωνα με την Ευρωπαϊκή Επιτροπή, 2020. *ΣΧΕΔΙΟ ΔΡΑΣΗΣ ΓΙΑ ΤΗΝ ΨΗΦΙΑΚΗ ΕΚΠΑΙΔΕΥΣΗ 2021-2027-* 4.1 Στρατηγική προτεραιότητα 1: Προώθηση της ανάπτυξης ενός οικοσυστήματος ψηφιακής εκπαίδευσης υψηλής απόδοσης, Το *περιεχόμενο της ψηφιακής εκπαίδευσης και η κατάρτιση σε ψηφιακές δεξιότητες - συμπεριλαμβανομένων των ψηφιακών μεθόδων διδασκαλίας - θα είναι απαραίτητα για το προσωπικό*, Ευρωπαϊκή Επιτροπή. σελ. 10.

η αξιοποίηση των πόρων που είναι ήδη διαθέσιμοι - αλλά πολύ συχνά δεν είναι επαρκώς διαδεδομένοι λόγω των γλωσσικών εμποδίων. Αυτό μπορεί επίσης να διευκολύνει τη διεθνοποίησή τους και τη δικτύωση της συνεργασίας.

2. **<u>Πρέπει να προωθηθεί η πολυθεματική και διεπιστημονική συνεργασία και οι νέες μέθοδοι αξιολόγησης, ξεπερνώντας τα παλαιά παραδείγματα του ενός καθηγητή και του ενός κλάδου.</u>**

Το υβριδικό πλαίσιο είναι ένα πολυθεματικό και διεπιστημονικό πλαίσιο και ως τέτοιο πρέπει να αντιμετωπίζεται.

Η προσαρμογή του εκπαιδευτικού περιεχομένου σε υβριδικά περιβάλλοντα απαιτεί χρόνο και, κυρίως, τεχνικές δεξιότητες που πολύ συχνά δεν κατέχουν οι εκπαιδευτικοί. Για παράδειγμα, η ψηφιοποίηση του περιεχομένου, η προετοιμασία διαδικτυακών πλατφορμών, η επίλυση τεχνικών προβλημάτων (πληροφορικής) κ.λπ. Υπό αυτή την έννοια, η υβριδική προσέγγιση απαιτεί μια διεπιστημονική συμβολή που προβλέπει, μεταξύ άλλων, τη συμμετοχή εκπαιδευτικών, τεχνικών πληροφορικής, εμπειρογνωμόνων σε θέματα διαδικτυακής εκπαίδευσης κ.λπ. Ταυτόχρονα, οι μαθητές χρειάζονται επίσης εξειδικευμένο προσωπικό που γνωρίζει πώς να τους ακολουθήσει στη μετάβαση στην υβριδική εκπαίδευση. Επιπλέον, η μάθηση με βάση το έργο απαιτεί τη συμμετοχή εκπαιδευτικών διαφορετικών κλάδων και τομέων, οι οποίοι γνωρίζουν πώς να ξεπεράσουν το παλιό παράδειγμα του ενός κλάδου. Επιπλέον, η συν-παρουσία εκπαιδευτικών διαφορετικών κλάδων, ενδεχομένως από διαφορετικά σχολεία, απαιτεί επαρκή χρόνο αφιερωμένο στον σχεδιασμό και τη συν-δημιουργία δραστηριοτήτων. Για το λόγο αυτό, η δημιουργία διεπιστημονικών ομάδων θα πρέπει να υποστηριχθεί και να γίνει δομική, ώστε να συμβάλλει, συμπληρώνοντας τις ελλείψεις των επιμέρους μεθόδων διδασκαλίας.

Πρέπει να εισαχθούν νέοι τρόποι αξιολόγησης του μαθησιακού επιπέδου των μαθητών.

Η αξιολόγηση των μαθητών με βάση τις ατομικές εξετάσεις είναι ένα παράδειγμα που πρέπει να αλλάξει. Η υβριδική προσέγγιση είναι, όπως αναφέρθηκε, διεπιστημονική, συνδέεται με τα κίνητρα και είναι συχνά συλλογική. Ως εκ τούτου, αυτός ο τύπος αξιολόγησης δεν έχει πλέον νόημα και θα πρέπει αντ' αυτού να αντικατασταθεί από μια πιο ολοκληρωμένη αξιολόγηση του χαρτοφυλακίου του φοιτητή. Για το λόγο αυτό, είναι απαραίτητο να υποστηριχθούν οι εκπαιδευτικοί - και το σχολικό σύστημα γενικότερα - στον προσδιορισμό νέων μεθόδων αξιολόγησης, πιο κατάλληλων για υβριδικά περιβάλλοντα.

Ο βασικός ρόλος της Ανώτατης Εκπαίδευσης

Ως υπεύθυνα για την κατάρτιση των μελλοντικών εκπαιδευτικών, τα ιδρύματα τριτοβάθμιας εκπαίδευσης διαδραματίζουν βασικό ρόλο στην ψηφιακή μετάβαση του εκπαιδευτικού συστήματος. Για το λόγο αυτό, είναι απαραίτητο η τριτοβάθμια εκπαίδευση να υποστηρίζει τη μάθηση που βασίζεται σε προβλήματα, τοποθετώντας την παράλληλα με τις πιο συμβατικές προσεγγίσεις. Η κατάρτιση των μελλοντικών εκπαιδευτικών θα πρέπει να επικεντρώνεται κυρίως στην πρακτική και λιγότερο στη θεωρία, ιδίως όσον αφορά την προετοιμασία για υβριδικά πλαίσια. Ειδικότερα, θα πρέπει να προωθηθεί η συνεργασία σχολείου-πανεπιστημίου για:

- Ανάπτυξη κοινότητας πρακτικών μεταξύ των προϋπηρεσίας εκπαιδευτικών και των εν ενεργεία εκπαιδευτικών,
- Παροχή ενός πλαισίου για τους εκπαιδευτικούς στο σχολείο κατά τη διάρκεια της πρακτικής άσκησης (με έμφαση στην εκπαίδευση STEAME),
- Δημιουργία μηχανισμού παρακολούθησης/αξιολόγησης για τις εν λόγω συμπράξεις.

3. Ο στρατηγικός σχεδιασμός και η προσβασιμότητα θα πρέπει να θεωρούνται βασικά στοιχεία του υβριδικού σχολείου .

Ο στρατηγικός σχεδιασμός των προγραμμάτων και των ρυθμίσεων αποτελεί βασικό παράγοντα στα υβριδικά σχολεία.

Η ανάγκη για τη συμμετοχή μιας διεπιστημονικής ομάδας και για ένα πλαίσιο που να λαμβάνει υπόψη και να χρησιμοποιεί θετικά τη συλλογική δυναμική απαιτεί αναγκαστικά αλλαγή του προγράμματος των σχολείων. Είναι απαραίτητο οι εκπαιδευτικοί από τη μία πλευρά και οι μαθητές από την άλλη να έχουν τη δυνατότητα να προσαρμόζουν το πρόγραμμά τους με ευέλικτο τρόπο, ανάλογα με τις ανάγκες του συγκεκριμένου έργου. Ταυτόχρονα, το περιβάλλον της τάξης πρέπει να επανεξεταστεί και να προσαρμοστεί σύμφωνα με τις ανάγκες του έργου. Ο φυσικός και ο εικονικός χώρος πρέπει να είναι συμβατοί- πρέπει να επικοινωνούν με τρόπο λειτουργικό για τη διδασκαλία. Για το λόγο αυτό, είναι απαραίτητο να μεταρρυθμιστεί η μονολιθική και ξεπερασμένη προσέγγιση που θέτει, εκ των προτέρων, προκαθορισμένους χρόνους και χώρους για τη διδασκαλία.

Η προσβασιμότητα σε όλους θα πρέπει να προωθηθεί ως βασική αξία και βασικό πρότυπο.

Όλα τα εκπαιδευτικά πλαίσια πρέπει επίσης να είναι προσβάσιμα σε άτομα με ειδικές ανάγκες, συμπεριλαμβανομένων των ατόμων με αναπηρία. Θα πρέπει να δίνεται μέγιστη προσοχή σε αυτή την πτυχή ακόμη και στην υβριδική εκπαίδευση. Για το λόγο αυτό, θα πρέπει να δημιουργηθούν και να προωθηθούν ελάχιστα κριτήρια προσβασιμότητας μέσω ειδικών κατευθυντήριων γραμμών και κανονισμών. Θα πρέπει να δοθεί ειδική υποστήριξη για να καταστούν προσβάσιμοι τόσο οι φυσικοί όσο και οι ψηφιακοί χώροι, μόνο έτσι μπορεί η υβριδική εκπαίδευση να είναι πραγματικά προσβάσιμη σε όλους. [24]

4. Πρέπει να προωθηθούν και να υποστηριχθούν τα κίνητρα και η δέσμευση σε διάφορα επίπεδα.

Τα κίνητρα και η δέσμευση των διευθυντών των σχολείων πρέπει να υποστηριχθούν, επίσης με την εισαγωγή σχολικών πιστοποιήσεων HYBRYD.

Η μετάβαση στην υβριδική διδασκαλία δεν μπορεί να γίνει χωρίς τα κίνητρα των μεμονωμένων διευθυντών σχολείων και των μεμονωμένων σχολείων. Αυτή η πτυχή πρέπει να θεωρείται εξίσου σημαντική με τους οικονομικούς πόρους. Χωρίς ένα από τα δύο στοιχεία, η μετάβαση στην υβριδική δεν μπορεί να πραγματοποιηθεί. Για το λόγο αυτό, είναι σημαντικό να δημιουργηθούν σήματα (labels), τυποποιημένα και διεθνώς αναγνωρισμένα, τα οποία να πιστοποιούν το επίπεδο που έχει επιτύχει το συγκεκριμένο σχολείο στη μετάβαση ή/και τη ρητή δέσμευση που έχει υπογράψει το ίδιο με σεβασμό στις επιδιώξεις η συγκεκριμένους στόχους προς τη μετάβαση. Με αυτόν τον τρόπο, το σχολείο που αναλαμβάνει να επενδύσει τους πόρους του στη μετάβαση θα λάβει ανατροφοδότηση από πλευράς προβολής και εμφανή βελτίωση της ποιότητας της προσφοράς του. Με τη σειρά του, αυτό θα ενίσχυε την οικονομική βιωσιμότητα του ίδιου του σχολείου.

[24] Σύμφωνα με την Ευρωπαϊκή Επιτροπή, 2020. *ΑΝΑΚΟΙΝΩΣΗ ΤΗΣ ΕΠΙΤΡΟΠΗΣ ΠΡΟΣ ΤΟ ΕΥΡΩΠΑΪΚΟ ΚΟΙΝΟΒΟΥΛΙΟ, ΤΟ ΣΥΜΒΟΥΛΙΟ, ΤΗΝ ΕΥΡΩΠΑΪΚΗ ΟΙΚΟΝΟΜΙΚΗ ΚΑΙ ΚΟΙΝΩΝΙΚΗ ΕΠΙΤΡΟΠΗ ΚΑΙ ΤΗΝ ΕΠΙΤΡΟΠΗ ΤΩΝ ΠΕΡΙΦΕΡΕΙΩΝ σχετικά με την επίτευξη του Ευρωπαϊκού Χώρου Εκπαίδευσης έως το 2025 - 3.2 Κάνοντας την εκπαίδευση και την κατάρτιση πιο περιεκτική και ευαισθητοποιημένη ως προς το φύλο*. Ευρωπαϊκή Επιτροπή, σ. 14.
Σύμφωνα με την Ευρωπαϊκή Επιτροπή, 2020. *ΣΧΕΔΙΟ ΔΡΑΣΗΣ ΓΙΑ ΤΗΝ ΨΗΦΙΑΚΗ ΕΚΠΑΙΔΕΥΣΗ 2021-2027 - 4.1 Στρατηγική προτεραιότητα 1: Προώθηση της ανάπτυξης ενός οικοσυστήματος ψηφιακής εκπαίδευσης υψηλής απόδοσης*. Ευρωπαϊκή Επιτροπή. σελ. 10
Σύμφωνα με το Ευρωπαϊκό Συμβούλιο, 2021. *Ψήφισμα του Συμβουλίου σχετικά με ένα στρατηγικό πλαίσιο για την ευρωπαϊκή συνεργασία στον τομέα της εκπαίδευσης και της κατάρτισης με στόχο τον Ευρωπαϊκό Χώρο Εκπαίδευσης και πέραν αυτού (2021-2030) - Στρατηγική προτεραιότητα 1: Βελτίωση της ποιότητας, της ισότητας, της ένταξης και της επιτυχίας για όλους στην εκπαίδευση και την κατάρτιση*. Ευρωπαϊκό Συμβούλιο, σ. 9.

Τα κίνητρα των εκπαιδευτικών πρέπει να υποστηριχθούν για να επιτευχθεί η υβριδική μετάβαση.

Τα κίνητρα των εκπαιδευτικών και η προσήλωσή τους στα υβριδικά σχέδια μετάβασης των σχολείων είναι ένα άλλο βασικό στοιχείο. Πρέπει να ληφθεί υπόψη ότι συχνά η διαδεδομένη τάση μεταξύ των εκπαιδευτικών είναι να αντιτίθενται στην αλλαγή των σχεδίων διδασκαλίας και στην εισαγωγή νέων εργαλείων. Μερικές φορές, η εισαγωγή καινοτομιών θεωρείται ως έντονη απαίτηση χρόνου και πόρων μπροστά στα φτωχά αποτελέσματα. Για το λόγο αυτό, θα πρέπει να ενθαρρυνθεί η δέσμευση των εκπαιδευτικών. Οι εκπαιδευτικοί πρέπει να λαμβάνουν την απαραίτητη υποστήριξη και ειδική καθοδήγηση για να τους βοηθήσουν να κατανοήσουν τους σκοπούς και τους στόχους των καινοτομιών που εισάγονται. Θα μπορούσαν να διοριστούν "εκπαιδευτές υβριδικής μετάβασης" μέσα στα σχολεία για να παρέχουν πληροφορίες και καθοδήγηση στους εκπαιδευτικούς που το χρειάζονται, ώστε να μειωθεί το άγχος για την αλλαγή.[25] Σε κάποιο βαθμό, τα οικονομικά κίνητρα θα μπορούσαν επίσης να στηρίξουν τη δέσμευση των εκπαιδευτικών.

Τα κίνητρα και η συμμετοχή των εκπαιδευομένων πρέπει να υποστηριχθούν για να επιτευχθεί η υβριδική μετάβαση.

Οι διεπιστημονικές προσεγγίσεις, τα συλλογικά πλαίσια διδασκαλίας και τα υβριδικά περιβάλλοντα μπορούν δυνητικά να αποτελέσουν στοιχεία που αυξάνουν την απόσταση μεταξύ των εκπαιδευομένων και των καθηγητών τους, των συναδέλφων τους και του περιεχομένου της κατάρτισης. Με τον ίδιο τρόπο, ωστόσο, μπορούν να αποτελέσουν μια ανεκμετάλλευτη ευκαιρία για τη μείωση αυτών των αποστάσεων. Επομένως, είναι σημαντικό να μην αφήσουμε κανέναν πίσω. Για το λόγο αυτό, η εξατομίκευση των εκπαιδευτικών προγραμμάτων, ο προσδιορισμός μαθημάτων κατάρτισης με προσαρμόσιμους στόχους, η υποστήριξη της συν-δημιουργίας και της υποστήριξης από ομότιμους μεταξύ των μαθητών πρέπει να ενθαρρυνθούν και να συμπεριληφθούν στα ίδια τα εκπαιδευτικά σχέδια.[26]

Οι γονείς πρέπει να καθησυχαστούν και να ενημερωθούν για την υβριδική μετάβαση.

Οι γονείς διαδραματίζουν καθοριστικό ρόλο στην ανατροφή των παιδιών τους. Πρέπει να ενημερωθούν για τις αλλαγές που επιφέρουν οι υβριδικές ρυθμίσεις, να καθησυχαστούν για

[25] Σύμφωνα με το επάγγελμα Ευρωπαϊκή Επιτροπή, 2020. *ΑΝΑΚΟΙΝΩΣΗ ΤΗΣ ΕΠΙΤΡΟΠΗΣ ΠΡΟΣ ΤΟ ΕΥΡΩΠΑΪΚΟ ΚΟΙΝΟΒΟΥΛΙΟ, ΤΟ ΣΥΜΒΟΥΛΙΟ, ΤΗΝ ΕΥΡΩΠΑΪΚΗ ΟΙΚΟΝΟΜΙΚΗ ΚΑΙ ΚΟΙΝΩΝΙΚΗ ΕΠΙΤΡΟΠΗ ΚΑΙ ΤΗΝ ΕΠΙΤΡΟΠΗ ΤΩΝ ΠΕΡΙΦΕΡΕΙΩΝ για την επίτευξη του Ευρωπαϊκού Χώρου Εκπαίδευσης έως το 2025 - 3.4 Ενίσχυση των ικανοτήτων και των κινήτρων στην εκπαίδευση.* σελ. 18.

[26] Μια καλή πρακτική σε αυτό το θέμα αντιπροσωπεύεται από το πρόγραμμα STEAME STUDENTS.

τους πιθανούς κινδύνους και να ενημερωθούν για τα πιθανά οφέλη. Η επικοινωνία με τους γονείς πρέπει να διατηρείται και να τους συνοδεύουν βήμα προς βήμα. Η εμπλοκή των γονέων θα πρέπει να έχει δύο στόχους: Να παράσχει στους γονείς πληροφορίες σχετικά με τη χρήση των υβριδικών περιβαλλόντων στις σχολικές δραστηριότητες και να τους επιτρέψει να διαδραματίσουν πιο ενεργό ρόλο στην καθοδήγηση των παιδιών τους όταν βρίσκονται στο σπίτι.

Θα πρέπει να συμμετέχουν πρεσβευτές υβριδικών συστημάτων, εκπαιδευμένοι στη χρήση υβριδικών ρυθμίσεων και στην εκπαίδευση και υποστήριξη άλλων ενδιαφερομένων μερών. Αυτοί οι πρεσβευτές θα μπορούσαν να αποτελέσουν το σημείο εστίασης για την υποστήριξη των διευθυντών των σχολείων, των εκπαιδευτικών, των μαθητών και των γονέων.

5. **<u>Πρέπει να προωθηθούν τα σχέδια μετάβασης στο υβριδικό σχολείο, επίσης με σκοπό την υποστήριξη της αναγκαίας προσαρμογής των υποδομών .</u>**

Θα πρέπει να αναπτυχθούν τυποποιημένα σχέδια ψηφιακής μετάβασης για την καθοδήγηση των διευθυντών των σχολείων.

Η υιοθέτηση σχεδίων ψηφιακού μετασχηματισμού που λαμβάνουν υπόψη τη μετάβαση στις υποδομές θα πρέπει να προωθηθεί σε όλα τα σχολεία σε επίπεδο ΕΕ. Ταυτόχρονα, είναι σημαντικό τα σχέδια αυτά να είναι σχετικά τυποποιημένα και κοινά, ώστε να παρέχονται στους διευθυντές των σχολείων συγκεκριμένοι οδηγοί στους οποίους μπορούν να ανατρέξουν και πρακτικά εργαλεία για να τα εφαρμόσουν. Με αυτόν τον τρόπο, μια συγκεκριμένη ανταπόκριση στις τεχνικές απαιτήσεις των σχολείων θα μπορούσε να σχεδιαστεί και να υλοποιηθεί πιο εύκολα.

Τάξεις - Σχολεία - Εκπαιδευτικό σύστημα: απαιτείται συνέργεια και συντονισμός.

Οι προσπάθειες του ενιαίου σχολείου θα πρέπει να ευθυγραμμιστούν με ένα κοινό πλαίσιο μετάβασης, το οποίο σχεδιάζεται, παρακολουθείται και ελέγχεται σε ανώτερο επίπεδο. Η εισαγωγή υβριδικών πλαισίων θα έχει/έχει ισχυρό αντίκτυπο στο εκπαιδευτικό σύστημα και δεν μπορεί να αντιμετωπιστεί με αποσπασματικό και ασύνδετο τρόπο. Οι φορείς χάραξης πολιτικής και οι κανονισμοί θα πρέπει να παρέχουν ισχυρό συντονισμό, κοινά πρωτόκολλα, τραπέζια συζητήσεων στα οποία τα σχολεία μπορούν να συζητήσουν με τους συναδέλφους τους και με περιφερειακούς ή υπουργικούς φορείς. Η σύμπνοια μεταξύ τάξεων και σχολείων είναι συχνά

δύσκολο να επιτευχθεί λόγω του φαινομένου της "ταξικής απομόνωσης". Αυτό πρέπει να ληφθεί υπόψη και να αντιμετωπιστεί (π.χ. με τη δημιουργία τοπικών κοινοτήτων πρακτικής) για τη μεταφορά γνώσεων και πρακτικών. Επιπλέον, τα εθνικά προγράμματα σπουδών θα πρέπει να επιτρέπουν και να προωθούν τη χρήση της υβριδικής μάθησης.

Θα πρέπει να χρηματοδοτηθεί η ανακαίνιση των υποδομών για να τεθεί η βάση για τη μετάβαση στο υβριδικό περιβάλλον.

Η υβριδική εκπαίδευση δεν μπορεί να αγνοήσει ορισμένες θεμελιώδεις βασικές προϋποθέσεις. Σταθερές συνδέσεις στο διαδίκτυο, ηλεκτρονικές συσκευές, πλήρως εξοπλισμένες αίθουσες διδασκαλίας/εργαστήρια, ψηφιοποιημένο εκπαιδευτικό υλικό και άλλες ελάχιστες απαιτήσεις είναι βασικά στοιχεία, χωρίς τα οποία η υβριδική εκπαίδευση δεν είναι δυνατή. Ωστόσο, ειδικά σε αγροτικά περιβάλλοντα, αυτά συχνά απουσιάζουν ή είναι ανεπαρκή. Επίσης, η αδειοδοτημένη πλατφόρμα και τα εργαλεία είναι συχνά απρόσιτα για σχολεία με χαμηλό προϋπολογισμό. Για το λόγο αυτό, θα πρέπει να διατεθούν επαρκείς οικονομικοί πόροι για να εξασφαλιστούν τα ελάχιστα επίπεδα υποδομής πάνω στα οποία θα οικοδομηθεί το υβριδικό σχολείο του μέλλοντος.[27] Στα σχολεία θα πρέπει να παρέχεται καθοδήγηση για τη χρηματοδότηση, σύνδεσμοι/πηγές/επαφές χρηματοδοτικών οργανισμών τόσο σε εθνικό όσο και σε ευρωπαϊκό επίπεδο.

Η έκτακτη ανάγκη COVID 19 αποτέλεσε μια αναγκαστική ώθηση για την ψηφιακή και υβριδική μετάβαση, αλλά δεν μπορεί να είναι ο ορίζοντας της. Το υβριδικό σχολείο είναι το σχολείο του μέλλοντος.

Η έκτακτη ανάγκη COVID 19 ανάγκασε πολλά σχολεία να επιταχύνουν την ψηφιοποίηση και την υβριδοποίηση των δραστηριοτήτων τους με απροσδόκητο και απότομο τρόπο. Για να μην πάνε χαμένες οι προσπάθειες που κατέβαλαν τα σχολεία, οι εκπαιδευτικοί, οι μαθητές και τα ιδρύματα αυτή την περίοδο, είναι απαραίτητο να διασφαλιστεί ότι αυτό το άλμα προς τα εμπρός θα γίνει διαρθρωτικό. Δηλαδή, πρέπει να βγούμε από την προοπτική της έκτακτης ανάγκης και να εισέλθουμε σε εκείνη του σχεδιασμού.

[27] Σύμφωνα με το Ευρωπαϊκό Συμβούλιο, 2021. *Ψήφισμα του Συμβουλίου σχετικά με ένα στρατηγικό πλαίσιο για την ευρωπαϊκή συνεργασία στον τομέα της εκπαίδευσης και της κατάρτισης με στόχο τον Ευρωπαϊκό Χώρο Εκπαίδευσης και πέραν αυτού (2021-2030) - Στρατηγική προτεραιότητα 5: Υποστήριξη της πράσινης και της ψηφιακής μετάβασης στην εκπαίδευση και την κατάρτιση και μέσω αυτής*. Ευρωπαϊκό Συμβούλιο, σ. 16.

(IT) RACCOMANDAZIONE POLITICHE

Sommario

Sviluppate dal progetto STEAME GOES HYBRID, queste raccomandazioni per le policy hanno i seguenti obiettivi:

- Fornire una base per il dibattito pubblico e un fondamento per lo sviluppo di politiche strategiche su come sfruttare l'ibridazione in modo sistematico verso la piena attuazione dello Spazio europeo dell'istruzione (EU Education Area).
- Migliorare la comprensione da parte dei responsabili politici a livello europeo e nazionale delle sfide e delle esigenze di scuole, insegnanti e studenti, con un'attenzione specifica alla transizione digitale e agli ambienti ibridi di apprendimento.
- Contribuire all'identificazione delle priorità e allo sviluppo di regolamenti in grado di supportare le scuole ibride.
- Creare nuove visioni strategiche per le moderne istituzioni scolastiche all'indomani della pandemia COVID 19 e dell'emergenza da questa rappresentata per i sistemi educativi.
- Contribuire alla definizione di nuovi spazi di apprendimento modellati su formule digitali e ibride, che migliorino l'accessibilità e l'inclusività dell'offerta formativa.
- Creare le basi per un più forte apprendimento tra pari nell'UE nel contesto della digitalizzazione del sistema educativo.
- Sensibilizzare l'opinione pubblica sulle implicazioni della preparazione digitale per le comunità scolastiche, fornendo input basati su dati concreti.

Il progetto ha individuato raccomandazioni in 5 aree principali:

*1. **Il sostegno agli insegnanti** deve essere continuo e multidimensionale.*

- **L'apprendimento permanente e lo sviluppo professionale continuo devono essere alla portata di tutti gli insegnanti.**
- **È necessario fornire agli insegnanti un supporto e un feedback continui.**
- **Gli insegnanti devono essere sostenuti nelle competenze delle esperienze educative collettive.**
- **La comprensione di base della lingua inglese da parte degli insegnanti deve essere supportata.**

2. *È necessario promuovere la* ***collaborazione multidisciplinare e interdisciplinare*** *e nuovi metodi di valutazione, superando i vecchi paradigmi del singolo insegnante e della singola disciplina.*

- **Il contesto ibrido è un contesto multidisciplinare e interdisciplinare e deve essere trattato come tale.**
- **È necessario introdurre nuove modalità di valutazione del livello di apprendimento degli studenti.**
- **Il ruolo chiave dell'istruzione superiore**

3. La pianificazione strategica e l'accessibilità *devono essere considerate elementi essenziali della scuola ibrida.*

- **La pianificazione strategica degli orari e degli ambienti è un fattore chiave nelle scuole ibride.**
- **L'accessibilità per tutti dovrebbe essere promossa come valore chiave e standard di base.**

4. *È necessario promuovere e sostenere* ***la motivazione e l'impegno*** *a diversi livelli.*

- **La motivazione e l'impegno dei dirigenti scolastici devono essere sostenuti, anche attraverso l'introduzione delle certificazioni per le Scuole Ibride.**
- **La motivazione degli insegnanti deve essere sostenuta per realizzare la transizione ibrida.**
- **La motivazione e la partecipazione degli studenti devono essere sostenute per realizzare la transizione ibrida.**
- **I genitori devono essere rassicurati e informati sulla transizione ibrida.**

5. *È necessario promuovere* ***piani di transizione*** *verso la scuola ibrida, anche al fine di sostenere il necessario adeguamento infrastrutturale.*

- **È necessario sviluppare piani di transizione digitale standardizzati per guidare i dirigenti scolastici.**
- **Classi - Scuole - Sistema educativo: la sinergia ed il coordinamento tra questi sistemi sono necessari.**
- **Il rinnovamento delle infrastrutture dovrebbe essere finanziato a porre le basi per la transizione all'ambiente ibrido.**
- **L'emergenza COVID 19 ha rappresentato una spinta forzata per la transizione digitale e ibrida, ma non può esserne l'orizzonte. La scuola ibrida è la scuola del futuro.**

Raccomandazioni politiche implementate dal progetto STEAME goes HYBRID

Il progetto ha individuato raccomandazioni in 5 aree principali:

1. **<u>Il sostegno agli insegnanti deve essere continuo e multidimensionale.</u>**

L'apprendimento permanente e lo sviluppo professionale continuo devono essere alla portata di tutti gli insegnanti.

L'importanza dell'apprendimento continuo è stata sottolineata più volte in molti documenti e linee guida nell'ambito dell'istruzione. Allo stesso tempo, gli insegnanti spesso si trovano nell'impossibilità di svilupparsi professionalmente seguendo nuovi corsi perché non hanno il tempo per farlo. Per sostenere la fattibilità e l'efficacia di questi corsi, agli insegnanti dovrebbero essere garantiti il tempo e le risorse necessarie. In caso contrario, il concetto di apprendimento permanente rimarrà sulla carta, ma non avrà un impatto reale sul sistema educativo in Europa.[28]

È necessario fornire agli insegnanti un supporto e un feedback continui.

Gli insegnanti, anche quando hanno le competenze digitali necessarie per utilizzare gli strumenti messi a loro disposizione, hanno bisogno di indicazioni e feedback su come applicare l'apprendimento basato su progetti in un ambiente ibrido. Gli insegnanti dovrebbero ricevere un supporto continuo nell'implementazione dell'approccio ibrido STEAME. [29] Inoltre, è necessario permettere sia agli insegnanti che agli studenti di testare gli ambienti di apprendimento ibridi prima di adottarli. Gli insegnanti dovrebbero essere supportati anche fornendo loro metodologie innovative di insegnamento ed apprendimento basato su progetti. È necessario promuovere la ricerca per stabilire una metodologia di base in tal senso e buone pratiche dovrebbero essere messe a disposizione degli insegnanti per guidarli nella loro pratica quotidiana.

[28] In linea con il Consiglio europeo del 2021. *Risoluzione del Consiglio su un quadro strategico per la cooperazione europea nel settore dell'istruzione e della formazione verso lo Spazio europeo dell'istruzione e oltre (2021-2030) - Priorità strategica 2: fare dell'apprendimento permanente e della mobilità una realtà per tutti*. Consiglio europeo, pag. 11.

[29] In linea con la Commissione europea, 2020. *PIANO D'AZIONE PER L'ISTRUZIONE DIGITALE 2021-2027*- 4.1 Priorità strategica 1: promuovere lo sviluppo di un ecosistema di istruzione digitale ad alte prestazioni, i *contenuti dell'istruzione digitale e la formazione in materia di competenze digitali - compresi i metodi di insegnamento digitali - saranno essenziali per il personale*, Commissione europea. p.10.

È necessario sostenere le competenze degli insegnanti rispetto alle esperienze educative collettive.

Molto spesso, nel contesto della formazione ibrida come in quello tradizionale, il focus dell'intervento è rivolto al singolo studente. Non viene data sufficiente importanza alla componente collettiva dell'esperienza di apprendimento. L'attenzione all'apprendimento/insegnamento individuale non tiene conto delle dinamiche di gruppo che invece influenzano fortemente l'approccio degli studenti, la loro capacità di attenzione, il loro rendimento, ecc. Per questo motivo, le competenze degli insegnanti dovrebbero essere sostenute nella direzione di fornire loro i metodi e gli strumenti per conoscere, guidare e utilizzare al meglio le dinamiche collettive dei contesti ibridi. In generale, l'approccio all'apprendimento ibrido dovrebbe essere visto come un nuovo metodo di insegnamento e apprendimento piuttosto che come una soluzione ad hoc a una situazione di crisi.

La comprensione di base della lingua inglese da parte degli insegnanti dovrebbe essere supportata.

Gran parte degli insegnanti dell'UE non parla inglese. Allo stesso tempo, gran parte delle risorse a loro disposizione per ibridare i loro ambienti e i loro metodi di insegnamento (strumenti digitali, metodologie, formazione, ecc.) sono in inglese. Per questo motivo, la formazione all'inglese di base dovrebbe essere inclusa nello sviluppo professionale continuo degli insegnanti. In questo modo si massimizzerebbe lo sfruttamento delle risorse già disponibili - ma molto spesso non sufficientemente diffuse a causa delle barriere linguistiche. Questo potrebbe anche facilitare la loro internazionalizzazione e la cooperazione in rete.

2. **Occorre promuovere la collaborazione multidisciplinare e interdisciplinare e nuovi metodi di valutazione, superando i vecchi paradigmi del singolo insegnante e della singola disciplina.**

Il contesto ibrido è un contesto multidisciplinare e interdisciplinare e come tale deve essere trattato.

L'adattamento dei contenuti didattici a contesti ibridi richiede tempo e, soprattutto, competenze tecniche che molto spesso gli insegnanti non padroneggiano. Ad esempio, la digitalizzazione dei contenuti, la preparazione di piattaforme online, la soluzione di problemi tecnici (informatici), ecc. In questo senso, l'approccio ibrido richiede un contributo multidisciplinare che vede, tra gli altri, la partecipazione di insegnanti, tecnici informatici, esperti di didattica online, ecc. Allo stesso

tempo, gli studenti hanno bisogno di personale dedicato che sappia seguirli nel passaggio alla didattica ibrida. Inoltre, l'apprendimento basato su progetti richiede il coinvolgimento di insegnanti di diverse discipline e aree, che sappiano come superare il vecchio paradigma monodisciplinare. Inoltre, la copresenza di insegnanti di diverse discipline, potenzialmente provenienti da scuole diverse, richiede un tempo adeguato dedicato alla pianificazione e alla co-creazione delle attività. Per questo motivo, la creazione di gruppi multidisciplinari dovrebbe essere sostenuta e diventare strutturale, al fine di integrare, completandole, le carenze dei singoli metodi di insegnamento.

È necessario introdurre nuove modalità di valutazione del livello di apprendimento degli studenti.

Valutare gli studenti sulla base di esami individuali è un paradigma che deve cambiare. L'approccio ibrido è, come detto, multidisciplinare, legato alla motivazione, spesso collettivo. Pertanto, questo tipo di valutazione non ha più senso e dovrebbe essere sostituito da una valutazione più completa del portfolio dello studente. È fondamentale che gli insegnanti - e il sistema scolastico in generale - siano supportati nell'individuazione di nuovi metodi di valutazione, più adatti ai contesti ibridi.

Il ruolo chiave dell'istruzione superiore

In quanto responsabili della formazione dei futuri insegnanti, gli istituti di istruzione superiore svolgono un ruolo fondamentale nella transizione digitale del sistema educativo. Per questo motivo, è essenziale che l'istruzione superiore sostenga l'apprendimento basato sui problemi, affiancandolo agli approcci più convenzionali. La formazione dei futuri insegnanti dovrebbe concentrarsi soprattutto sulla pratica e meno sulla teoria, in particolare quando si tratta di prepararsi a contesti ibridi. Il partenariato scuola-università dovrebbe essere promosso per:

- Sviluppare una comunità di pratiche tra gli insegnanti attuali e quelli futuri (ancora studenti);
- Fornire un quadro di riferimento per gli insegnanti a scuola durante il praticantato (con particolare attenzione all'educazione al gioco);
- Stabilire un meccanismo di monitoraggio/valutazione per questi partenariati.

3. La pianificazione strategica e l'accessibilità devono essere considerate elementi essenziali della scuola ibrida.

La pianificazione strategica degli orari e degli ambienti è un fattore chiave nelle scuole ibride.

La necessità di coinvolgere un'équipe multidisciplinare e di avere un setting che consideri e utilizzi positivamente le dinamiche collettive richiede necessariamente un cambiamento negli orari delle scuole. È necessario che gli insegnanti da un lato e gli studenti dall'altro abbiano la possibilità di adattare i loro orari in modo flessibile, in base alle esigenze del progetto specifico. Allo stesso tempo, l'ambiente della classe deve essere ripensato e adattato in base alle esigenze del progetto. Lo spazio fisico e quello virtuale devono essere compatibili, devono comunicare in modo funzionale alla didattica. Per questo motivo, è necessario riformare l'approccio monolitico e obsoleto che stabilisce, a priori, tempi e spazi standardizzati per la didattica.

L'accessibilità per tutti dovrebbe essere promossa come valore chiave e standard di base.

Tutti i contesti educativi devono essere accessibili anche alle persone con esigenze speciali, comprese le persone con disabilità. Anche nell'istruzione ibrida si deve prestare la massima attenzione a questo aspetto. Per questo motivo, dovrebbero essere prodotti e promossi criteri minimi di accessibilità attraverso linee guida e regolamenti specifici. È necessario fornire un supporto dedicato per rendere accessibili sia gli spazi fisici che quelli digitali: solo in questo modo l'istruzione ibrida potrà essere davvero accessibile a tutti. [30]

[30] In linea con la Commissione europea, 2020. *COMUNICAZIONE DELLA COMMISSIONE AL PARLAMENTO EUROPEO, AL CONSIGLIO, AL COMITATO ECONOMICO E SOCIALE EUROPEO E AL COMITATO DELLE REGIONI sulla realizzazione dello Spazio europeo dell'istruzione entro il 2025 - 3.2 Rendere l'istruzione e la formazione più inclusive e sensibili al genere*. Commissione europea, pag. 14.
In linea con la Commissione europea, 2020. *PIANO D'AZIONE PER L'ISTRUZIONE DIGITALE 2021-2027 - 4.1 Priorità strategica 1: promuovere lo sviluppo di un ecosistema di istruzione digitale ad alte prestazioni*. Commissione europea. p.10
In linea con il Consiglio europeo del 2021. *Risoluzione del Consiglio su un quadro strategico per la cooperazione europea nel settore dell'istruzione e della formazione verso lo Spazio europeo dell'istruzione e oltre (2021-2030) - Priorità strategica 1: migliorare la qualità, l'equità, l'inclusione e il successo per tutti nell'istruzione e nella formazione*. Consiglio europeo, pag. 9.

4. Occorre promuovere e sostenere la motivazione e l'impegno a diversi livelli.

La motivazione e l'impegno dei dirigenti scolastici devono essere sostenuti, anche attraverso l'introduzione delle certificazioni per le Scuole Ibride.

Il passaggio all'insegnamento ibrido non può prescindere dalla motivazione dei singoli dirigenti scolastici e delle singole scuole. Questo aspetto deve essere considerato importante quanto le risorse economiche. Senza uno dei due elementi, la transizione all'ibrido non può avvenire. Per questo motivo, è importante creare delle certificazioni, standardizzate ericonosciute a livello internazionale, che certifichino il livello raggiunto dalla singola scuola nella transizione e/o l'impegno esplicito che la stessa ha sottoscritto rispetto alla persecuzione di obiettivi specifici verso la transizione. In questo modo, la scuola che si impegna a investire le proprie risorse nella transizione riceverebbe un riscontro in termini di visibilità e un evidente miglioramento della qualità della propria offerta. A sua volta, ciò rafforzerebbe la sostenibilità economica della scuola stessa.

La motivazione degli insegnanti deve essere sostenuta per realizzare la transizione ibrida.

La motivazione degli insegnanti e la loro adesione ai piani di transizione ibrida delle scuole è un altro elemento chiave. Bisogna considerare che spesso la tendenza diffusa tra gli insegnanti è quella di opporsi al cambiamento dei piani didattici e all'introduzione di nuovi strumenti. A volte, l'introduzione di novità è vista come una forte richiesta di tempo e di risorse a fronte di scarsi risultati. Per questo motivo, l'impegno degli insegnanti deve essere incoraggiato anche attraverso un coaching dedicato che li aiuti a comprendere scopi e obiettivi delle innovazioni introdotte. All'interno delle scuole potrebbero essere nominati dei "coach per la transizione ibrida" che forniscano informazioni e tutoraggio agli insegnanti che ne hanno bisogno, per ridurre l'ansia da cambiamento.[31] In una certa misura, anche gli incentivi finanziari potrebbero sostenere l'impegno degli insegnanti.

[31] In linea con la professione Commissione europea, 2020. *COMUNICAZIONE DELLA COMMISSIONE AL PARLAMENTO EUROPEO, AL CONSIGLIO, AL COMITATO ECONOMICO E SOCIALE EUROPEO E AL COMITATO DELLE REGIONI sulla realizzazione dello Spazio europeo dell'istruzione entro il 2025 - 3.4 Rafforzare le competenze e la motivazione nell'istruzione.* p.18.

La motivazione e la partecipazione degli studenti devono essere sostenute per realizzare la transizione ibrida.

Approcci interdisciplinari, contesti didattici collettivi e ambienti ibridi possono potenzialmente rappresentare elementi che aumentano la distanza tra i discenti e i loro insegnanti, i loro compagni, i contenuti formativi. Allo stesso modo, però, possono rappresentare un'opportunità imperdibile per accorciare queste distanze. È quindi fondamentale non lasciare indietro nessuno. Per questo motivo, l'individualizzazione dei programmi educativi, i percorsi formativi con obiettivi adattabili, il sostegno alla co-creazione e al supporto tra pari tra gli studenti devono essere stimolati ed inclusi nei piani educativi stessi.[32]

I genitori devono essere rassicurati e informati sulla transizione ibrida.

I genitori svolgono un ruolo fondamentale nell'educazione dei loro figli. Devono essere informati sui cambiamenti apportati dalle impostazioni ibride, rassicurati sui potenziali rischi e informati sui possibili benefici. È necessario mantenere la comunicazione con i genitori e accompagnarli passo dopo passo. Il coinvolgimento dei genitori deve mirare a due obiettivi: Fornire ai genitori informazioni sull'uso degli ambienti ibridi nelle attività scolastiche e consentire loro di svolgere un ruolo più attivo nella guida dei figli quando sono a casa.

Una soluzione potrebbe essere rappresentata dai cosiddetti “Ambasciatori Ibridi”: Personale scolastico formato all'uso di contesti ibridi ed al supporto dei propri colleghi. Questi ambasciatori potrebbero essere il punto di riferimento per sostenere dirigenti scolastici, insegnanti, studenti e genitori.

5. Occorre promuovere piani di transizione verso la scuola ibrida, anche al fine di sostenere il necessario adeguamento infrastrutturale.

È necessario sviluppare piani di transizione digitale standardizzati per guidare i dirigenti scolastici.

L'adozione di piani di trasformazione digitale che tengano conto della transizione infrastrutturale dovrebbe essere promossa in tutte le scuole a livello europeo. Allo stesso tempo, è importante che questi piani siano relativamente standardizzati e condivisi, in modo da fornire ai dirigenti

[32] Una buona pratica in questo senso è rappresentata dal progetto STEAME STUDENTS.

scolastici guide concrete a cui fare riferimento e strumenti pratici da mettere in campo. In questo modo, una risposta concreta ai requisiti tecnici delle scuole potrebbe essere più facilmente pianificata e concretamente attuata.

Classi - Scuole - Sistema educativo: sono necessari sinergia e coordinamento.

Gli sforzi della singola scuola dovrebbero essere allineati con il quadro di transizione del sistema, pianificato, monitorato e verificato a livello superiore. L'introduzione di contesti ibridi avrà / sta avendo un forte impatto sul sistema educativo e non può essere affrontata in modo frammentario e disarticolato. I decisori politici e le normative dovrebbero prevedere un forte coordinamento, protocolli condivisi, tavoli di discussione in cui le scuole possano confrontarsi con i loro pari e con gli stakeholder regionali o ministeriali. La sinergia tra classi e scuole è spesso difficile da realizzare a causa del fenomeno dell'"isolamento delle classi". Questo aspetto deve essere preso in considerazione e affrontato (ad esempio creando comunità di pratica locali) per trasferire conoscenze e pratiche. Inoltre, i programmi di studio nazionali dovrebbero consentire e promuovere l'uso dell'apprendimento ibrido.

Il rinnovamento delle infrastrutture dovrebbe essere finanziato per porre le basi per la transizione all'ambiente ibrido.

L'istruzione ibrida non può prescindere da alcune condizioni di base fondamentali. Connessioni internet stabili, dispositivi elettronici, aule/laboratori completamente attrezzati, materiale didattico digitalizzato e altri requisiti minimi sono elementi essenziali, senza i quali l'istruzione ibrida non è possibile. Tuttavia, soprattutto nei contesti rurali, questi elementi sono spesso assenti o insufficienti. Inoltre, piattaforma e strumenti a pagamento sono spesso inaccessibili alle scuole con budget ridotto. Per questo motivo, dovrebbero essere rese disponibili risorse economiche sufficienti a garantire i livelli infrastrutturali minimi su cui costruire la scuola ibrida del futuro.[33] Alle scuole dovrebbero essere fornite indicazioni sui finanziamenti, link/fonti/contatti di organizzazioni finanziatrici sia a livello nazionale che europeo.

[33] In linea con il Consiglio europeo del 2021. *Risoluzione del Consiglio su un quadro strategico per la cooperazione europea nel settore dell'istruzione e della formazione verso lo Spazio europeo dell'istruzione e oltre (2021-2030) - Priorità strategica 5: sostenere le transizioni verdi e digitali nell'istruzione e nella formazione e attraverso di esse*. Consiglio europeo, pag. 16.

L'emergenza COVID 19 ha rappresentato una spinta forzata per la transizione digitale e ibrida, ma non può esserne l'orizzonte. La scuola ibrida è la scuola del futuro.

L'emergenza COVID 19 ha costretto molte scuole ad accelerare la digitalizzazione e l'ibridazione delle loro attività in modo inaspettato e repentino. Per non disperdere gli sforzi fatti da scuole, insegnanti, studenti e istituzioni in questo periodo, è necessario fare in modo che questo salto di qualità diventi strutturale. Occorre cioè uscire dalla prospettiva dell'emergenza ed entrare in quella della pianificazione.

(PL) ZALECENIA dotyczące polityki OŚWIATOWEJ

Streszczenie wykonawcze

Zalecenia opracowane przez projekt STEAME GOES HYBRID mają na celu:

- Zapewnienie podstawy dla dyskursu publicznego i podstawy dla strategicznego rozwoju polityki dotyczącej tego, jak w systematyczny sposób wykorzystać hybrydyzację do pełnego wdrożenia w Obszarze Edukacji UE.
- Lepsze zrozumienie przez decydentów politycznych na szczeblu unijnym i krajowym wyzwań i potrzeb szkół, nauczycieli i uczniów, ze szczególnym naciskiem na transformację cyfrową i hybrydowe środowiska uczenia się.
- Wkład w identyfikację priorytetów i opracowanie przepisów mogących wspierać nauczanie hybrydowe.
- Stworzenie nowych wizji strategicznych dla nowoczesnych placówek szkolnych w następstwie pandemii i stanu wyjątkowego wprowadzonego do systemów edukacyjnych.
- Wkład w definiowanie nowych przestrzeni edukacyjnych kształtowanych przez formuły cyfrowe i hybrydowe, zwiększających dostępność i włączający charakter oferty edukacyjnej.
- Stworzenie podstaw dla silniejszego partnerskiego uczenia się w UE w kontekście cyfryzacji w szkołach.
- Podnoszenie świadomości społecznej na temat implikacji gotowości cyfrowej dla społeczności szkolnych, dostarczanie informacji opartych na dowodach.

W ramach projektu sformułowano rekomendacje w 5 głównych obszarach:

1. ***Wsparcie dla nauczycieli*** *musi być ciągłe i wielowymiarowe.*
    - **Uczenie się przez całe życie i ciągły rozwój zawodowy muszą być możliwe dla wszystkich nauczycieli.**

- **Należy zapewnić ciągłe wsparcie i informacje zwrotne dla nauczycieli.**
- **Nauczyciele muszą być wspierani w umiejętnościach kolektywnego doświadczenia edukacyjnego.**
- **Należy wspierać podstawowe rozumienie języka angielskiego przez nauczycieli.**

2. *Należy promować **multidyscyplinarną i interdyscyplinarną współpracę** oraz nowe metody oceniania, przezwyciężając stare paradygmaty jednego nauczyciela i jednej dyscypliny.*
   - **Kontekst hybrydowy jest kontekstem multidyscyplinarnym i interdyscyplinarnym i musi być traktowany jako taki.**
   - **Należy wprowadzić nowe sposoby oceniania poziomu nauczania uczniów.**
   - **Kluczową rolę powinno pełnić szkolnictwo wyższe.**

3. ***Planowanie strategiczne i dostępność** powinny być uważane za podstawowe elementy szkoły hybrydowej.*
   - **Strategiczne planowanie harmonogramów i organizacja zajęć są kluczowymi czynnikami w szkołach hybrydowych.**
   - **Dostępność dla wszystkich powinna być promowana jako kluczowa wartość i podstawowy standard.**

4. *Należy promować i wspierać **motywację i zaangażowanie** na różnych poziomach.*
   - **Należy wspierać motywację i zaangażowanie dyrektorów szkół, również poprzez wprowadzenie certyfikacji SZKOŁY HYBRYDOWEJ.**
   - **Aby osiągnąć przejście hybrydowe, należy wspierać motywację nauczycieli.**
   - **Motywacja i uczestnictwo uczniów muszą być wspierane, aby osiągnąć przejście hybrydowe.**
   - **Rodziców należy informować i wyjaśniać zalety przejścia na hybrydę.**

5. *Należy promować **plany przejścia** do szkoły hybrydowej, również w celu wsparcia niezbędnej adaptacji infrastruktury.*
   - **Należy opracować znormalizowane plany przejścia na technologię cyfrową, które będą stanowić wytyczne dla kierowników szkół.**
   - **Klasy – Szkoły – System edukacyjny: potrzebna jest synergia i koordynacja.**

- **Należy sfinansować renowację infrastruktury, aby stworzyć podstawy do przejścia na środowisko hybrydowe.**
- **Kryzys związany z COVID 19 stanowił wymuszony impuls dla transformacji cyfrowej i hybrydowej, ale nie może to być jej horyzont. Szkoła hybrydowa to szkoła przyszłości.**

Zalecenia dotyczące polityki realizowane przez STEAME to HYBRID Project

W ramach projektu zidentyfikowano rekomendacje w 5 głównych obszarach:

1. Wsparcie dla nauczycieli musi być ciągłe i wielowymiarowe.

Uczenie się przez całe życie i ciągły rozwój zawodowy powinny być możliwe dla wszystkich nauczycieli.

Znaczenie ciągłego uczenia się było wielokrotnie podkreślane w wielu dokumentach politycznych. Jednocześnie nauczyciele często nie są w stanie rozwijać się zawodowo na nowych kursach, ponieważ nie mają na to czasu. Aby wesprzeć wykonalność i skuteczność tych kursów, nauczycielom należy zagwarantować niezbędny czas i zasoby. W przeciwnym razie koncepcja uczenia się przez całe życie pozostanie tylko na papierze i nie będzie miała realnego wpływu na system edukacji w Europie.[34]

Należy zapewnić ciągłe wsparcie i informacje zwrotne dla nauczycieli.

Nauczyciele, nawet jeśli posiadają umiejętności cyfrowe niezbędne do korzystania z udostępnionych im narzędzi, potrzebują wskazówek i informacji zwrotnych na temat stosowania uczenia się opartego na projektach w środowisku hybrydowym. Nauczyciele powinni otrzymywać ciągłe wsparcie we wdrażaniu hybrydowego podejścia STEAME.[35] Należy również wspierać promocję hybrydowego nauczania i uczenia się wśród nauczycieli i uczniów oraz umożliwić im testowanie hybrydowych środowisk uczenia się przed ich przyjęciem. Nauczycieli należy również wspierać w zakresie metodologii nauczania i projektowania nauczania. Należy przeprowadzić badania w celu ustalenia metodologii ugruntowania, a nauczycielom należy udostępnić dobre praktyki, aby wspierać ich w codziennej praktyce.

[34]Zgodnie z Radą Europejską, 2021 r. Rezolucja Rady w sprawie strategicznych ram europejskiej współpracy w dziedzinie kształcenia i szkolenia w kierunku europejskiego obszaru edukacji i poza nim (2021–2030) – Priorytet strategiczny 2: Urzeczywistnienie uczenia się przez całe życie i mobilności dla wszystkich. Rada Europejska, str. 11.
[35] Zgodnie z Komisją Europejską, 2020. PLAN DZIAŁAŃ W DZIEDZINIE EDUKACJI CYFROWEJ NA LATA 2021-2027- 4.1 Priorytet strategiczny 1: Wspieranie rozwoju wydajnego ekosystemu edukacji cyfrowej Treści edukacji cyfrowej i szkolenia w zakresie umiejętności cyfrowych – w tym cyfrowych metod nauczania – będą miały zasadnicze znaczenie dla personelu, Komisja Europejska. str. 10.

Nauczyciele powinni być wspierani w umiejętności kolektywnego doświadczenia edukacyjnego.

Bardzo często, w kontekście edukacji hybrydowej, podobnie jak w przypadku tradycyjnej, uwaga interwencji skierowana jest na pojedynczego ucznia. Zbiorowemu komponentowi doświadczenia uczenia się nie poświęca się wystarczającej uwagi. Koncentracja na indywidualnym uczeniu się/nauczaniu nie uwzględnia dynamiki grupy, która zamiast tego silnie wpływa na podejście uczniów, ich koncentrację uwagi, wyniki itp. Z tego powodu należy wspierać kompetencje nauczycieli w kierunku nadania im metody i narzędzia, aby poznać, kierować i jak najlepiej wykorzystywać zbiorową dynamikę środowisk hybrydowych. Ogólnie rzecz biorąc, hybrydowe podejście do uczenia się powinno być postrzegane jako nowa metoda nauczania i uczenia się, a nie jako doraźne rozwiązanie sytuacji kryzysowej.

Należy wspierać podstawowe rozumienie języka angielskiego przez nauczycieli.

Duża część nauczycieli w UE nie mówi po angielsku. Jednocześnie duża część dostępnych im zasobów umożliwiających hybrydyzację ich otoczenia i metod nauczania (narzędzia cyfrowe, metodologie, szkolenia itp.) jest w języku angielskim. Z tego powodu szkolenie z zakresu podstaw języka angielskiego powinno być włączone w ustawiczny rozwój zawodowy nauczycieli. W ten sposób zmaksymalizowana zostałaby eksploatacja już dostępnych zasobów, które bardzo często nie są wystarczająco rozpowszechnione ze względu na bariery językowe. Może to również ułatwić ich internacjonalizację i współpracę sieciową.

2. Należy promować wielodyscyplinarną i interdyscyplinarną współpracę oraz nowe metody oceniania, przezwyciężając stare paradygmaty jednego nauczyciela i jednej dyscypliny.

Kontekst hybrydowy jest kontekstem multidyscyplinarnym i interdyscyplinarnym i jako taki musi być traktowany.

Adaptacja treści edukacyjnych do kontekstów hybrydowych wymaga czasu, a przede wszystkim umiejętności technicznych, których nauczyciele często nie opanowali. Na przykład cyfryzacja treści, przygotowanie platform internetowych, rozwiązywanie problemów technicznych (informatycznych) itp. W tym sensie podejście hybrydowe wymaga multidyscyplinarnego wkładu, który obejmuje m.in. udział nauczycieli, informatyków, techników, ekspertów ds. edukacji online itp. Jednocześnie uczniowie potrzebują również oddanej kadry, która wie, jak podążać za nimi w przejściu do edukacji hybrydowej. Ponadto uczenie się metodą projektów wymaga zaangażowania nauczycieli różnych dyscyplin i obszarów, którzy wiedzą, jak przezwyciężyć stary paradygmat jednodyscyplinarny. Ponadto współobecność nauczycieli różnych przedmiotów, potencjalnie z różnych szkół, wymaga odpowiedniej ilości czasu poświęconego na zaplanowanie i współtworzenie działań. Z tego powodu tworzenie zespołów multidyscyplinarnych powinno być wspierane i nabierać charakteru strukturalnego, aby uzupełniać, uzupełniać braki poszczególnych metod nauczania.

Należy wprowadzić nowe sposoby oceny poziomu nauczania uczniów

Ocenianie uczniów na podstawie indywidualnych egzaminów to paradygmat, który należy zmienić. Podejście hybrydowe jest, jak wspomniano, multidyscyplinarne, powiązane z motywacją, często kolektywne. Dlatego ten rodzaj oceny nie ma już sensu i powinien zostać zastąpiony bardziej kompleksową oceną portfolio studenta. Z tego powodu istotne jest, aby nauczyciele – i ogólnie system szkolny – byli wspierani w identyfikowaniu nowych metod oceniania, bardziej odpowiednich dla środowisk hybrydowych.

Kluczowa rola szkolnictwa wyższego

- Jako odpowiedzialne za kształcenie przyszłych nauczycieli, uczelnie odgrywają kluczową rolę w transformacji cyfrowej systemu edukacji. Z tego powodu istotne jest, aby szkolnictwo wyższe wspierało uczenie się oparte na problemach, umieszczając je obok bardziej konwencjonalnych podejść. Szkolenie przyszłych nauczycieli powinno koncentrować się przede wszystkim na praktyce, a mniej na teorii, zwłaszcza jeśli chodzi o przygotowanie do kontekstów hybrydowych. W szczególności należy promować partnerstwo szkoły z uczelnią, aby:
- Rozwijać wspólnotę praktyk wśród nauczycieli przygotowujących się do służby i w służbie;
- Zapewnienie ram dla nauczycieli w szkole podczas praktyk (z naciskiem na Steame Education);
- Ustanowienie mechanizmu monitorowania/oceny dla tych partnerstw.

3. Planowanie strategiczne i dostępność powinny być uważane za podstawowe elementy szkoły hybrydowej.

Strategiczne planowanie harmonogramów i ustawień jest kluczowym czynnikiem w szkołach hybrydowych.

Konieczność zaangażowania multidyscyplinarnego zespołu i stworzenia warunków, które pozytywnie uwzględniają i wykorzystują dynamikę zbiorową, z konieczności wymagają zmian w harmonogramie szkół. Konieczne jest, aby nauczyciele z jednej strony i uczniowie z drugiej mieli możliwość elastycznego dostosowywania swoich harmonogramów, zgodnie z potrzebami konkretnego projektu. Jednocześnie środowisko klasowe musi zostać ponownie przemyślane i dostosowane do potrzeb projektu. Przestrzeń fizyczna i wirtualna muszą być kompatybilne; muszą komunikować się w sposób funkcjonalny dla nauczania. Z tego powodu konieczne jest zreformowanie monolitycznego i przestarzałego podejścia, które wyznacza a priori z góry ustalone czasy i przestrzenie nauczania.

Dostępność dla wszystkich powinna być promowana jako kluczowa wartość i podstawowy standard.

Wszystkie konteksty edukacyjne muszą być również dostępne dla osób o specjalnych potrzebach, w tym osób z niepełnosprawnością. Na ten aspekt należy zwrócić szczególną uwagę nawet w edukacji hybrydowej. Z tego powodu należy opracować i promować minimalne kryteria dostępności za pomocą szczegółowych wytycznych i przepisów. Należy udzielić specjalnego wsparcia, aby udostępnić zarówno przestrzeń fizyczną, jak i cyfrową, tylko w ten sposób edukacja hybrydowa może być naprawdę dostępna dla wszystkich.[36]

4. Należy promować i wspierać motywację i zaangażowanie na różnych poziomach

Motywację i zaangażowanie dyrektorów szkół należy wspierać, również poprzez wprowadzenie szkolnych certyfikatów HYBRYD.

Przejście na nauczanie hybrydowe nie może obejść się bez motywacji poszczególnych dyrektorów szkół i poszczególnych szkół. Aspekt ten należy uznać za równie ważny jak zasoby gospodarcze. Bez jednego z tych dwóch elementów przejście do hybrydy nie może nastąpić. Z tego powodu ważne jest stworzenie znormalizowanych i uznanych na całym świecie etykiet, które poświadczają poziom osiągnięty przez pojedynczą szkołę w okresie przejściowym i/lub wyraźne zobowiązanie, które ta szkoła podpisała w odniesieniu do osiągnięcia określonych celów w kierunku przejścia. W ten sposób szkoła, która podejmie się zainwestowania swoich środków w transformację, otrzyma informację zwrotną w postaci widoczności i wyraźnej poprawy jakości swojej oferty. To z kolei poprawiłoby stabilność ekonomiczną samej szkoły.

Aby osiągnąć przejście hybrydowe, należy wspierać motywację nauczycieli.

Innym kluczowym elementem jest motywacja nauczycieli i przestrzeganie przez nich planów przekształceń hybrydowych szkół. Należy wziąć pod uwagę, że często powszechną tendencją wśród nauczycieli jest niechęć do zmiany planów nauczania i wprowadzania nowych narzędzi. Czasami wprowadzanie nowości postrzegane jest jako duże zapotrzebowanie na czas i środki w obliczu słabych wyników. Z tego powodu należy zachęcać nauczycieli do zaangażowania. Nauczyciele muszą otrzymać niezbędne wsparcie i

[36] Zgodnie z Komisją Europejską, 2020. KOMUNIKAT KOMISJI PRZY PARLAMENCIE EUROPEJSKIM, RADY, EUROPEJSKIEGO KOMITETU EKONOMICZNO-SPOŁECZNEGO I KOMITETU REGIONÓW w sprawie utworzenia Europejskiego Obszaru Edukacji do 2025 r. wrażliwy. Komisja Europejska, str. 14.
Zgodnie z Komisją Europejską, 2020. PLAN DZIAŁANIA W DZIEDZINIE CYFROWEJ EDUKACJI NA LATA 2021-2027 - 4.1 Priorytet strategiczny 1: Wspieranie rozwoju wydajnego ekosystemu edukacji cyfrowej. Komisja Europejska. str. 10
Zgodnie z Radą Europejską, 2021 r. Rezolucja Rady w sprawie strategicznych ram europejskiej współpracy w dziedzinie kształcenia i szkolenia w kierunku europejskiego obszaru edukacji i poza nim (2021–2030) – Priorytet strategiczny 1: Poprawa jakości, równości, włączenia i sukcesu w edukacji dla wszystkich i trening. Rada Europejska, str. 9.

dedykowany coaching, który pomoże im zrozumieć cele wprowadzanych innowacji. „Hybrydowi trenerzy przejścia" mogliby zostać wyznaczeni w szkołach w celu dostarczania informacji i korepetycji nauczycielom, którzy ich potrzebują, aby zmniejszyć niepokój związany ze zmianą.[37] W pewnym stopniu również zachęty finansowe mogłyby wspierać zaangażowanie nauczycieli.

Motywacja i uczestnictwo uczniów muszą być wspierane, aby osiągnąć przejście hybrydowe.

Podejścia interdyscyplinarne, zbiorowe konteksty nauczania i środowiska hybrydowe mogą potencjalnie reprezentować elementy, które zwiększają dystans między uczniami a ich nauczycielami, rówieśnikami, treścią szkolenia. Jednak w ten sam sposób mogą one stanowić nieuniknioną okazję do skrócenia tych odległości. Dlatego ważne jest, aby nikogo nie zostawiać w tyle. Z tego powodu indywidualizacja programów edukacyjnych, identyfikacja kursów szkoleniowych z elastycznymi celami, wspieranie współtworzenia i wzajemnego wsparcia wśród uczniów musi być stymulowane i uwzględniane w samych planach edukacyjnych.[38]

Rodzice muszą być uspokojeni i poinformowani o przejściu na hybrydę.

Rodzice odgrywają kluczową rolę w wychowaniu swoich dzieci. Muszą być informowani o zmianach, jakie niosą ze sobą środowiska hybrydowe, o potencjalnych zagrożeniach i informowani o możliwych korzyściach. Należy utrzymywać kontakt z rodzicami i towarzyszyć im krok po kroku. Zaangażowanie rodziców powinno mieć dwa cele: Dostarczenie rodzicom informacji na temat wykorzystania środowisk hybrydowych w zajęciach szkolnych i umożliwienie im odgrywania bardziej aktywnej roli w kierowaniu dziećmi, gdy są w domu.

Należy zaangażować ambasadorów hybryd, przeszkolonych w korzystaniu z środowisk hybrydowych oraz w szkoleniu i wspieraniu innych zainteresowanych stron. Ci ambasadorzy mogą być centralnymi punktami wspierania dyrektorów szkół, nauczycieli, uczniów i rodziców.

5. Należy promować plany przejścia do szkoły hybrydowej, również w celu wsparcia niezbędnej adaptacji infrastruktury.

Należy opracować znormalizowane plany przejścia na technologię cyfrową, które będą stanowić wytyczne dla menedżerów szkół.

Przyjęcie planów transformacji cyfrowej uwzględniających transformację infrastrukturalną powinno być promowane we wszystkich szkołach na poziomie UE. Jednocześnie ważne jest, aby plany te były

[37] *Zgodnie z zawodem Komisja Europejska, 2020. KOMUNIKAT KOMISJI DO PARLAMENTU EUROPEJSKIEGO, RADY, EUROPEJSKIEGO KOMITETU EKONOMICZNO-SPOŁECZNEGO I KOMITETU REGIONÓW w sprawie osiągnięcia Europejskiego Obszaru Edukacji do 2025 r. – 3.4 Wzmacnianie kompetencji i motywacji w edukacji str. 18.*

[38] *Dobrą praktyką w tym zakresie jest tzw.* STEAME STUDENTS project.

stosunkowo ujednolicone i udostępniane, aby zapewnić dyrektorom szkół konkretne wskazówki, do których można się odnieść, oraz praktyczne narzędzia, które należy wdrożyć. W ten sposób konkretna odpowiedź na techniczne wymagania szkół mogłaby być łatwiej zaplanowana i konkretnie wdrożona.

Klasy – Szkoły – System edukacyjny: potrzebna jest synergia i koordynacja.

Wysiłki pojedynczej szkoły powinny być dostosowane do wspólnych ram przejściowych, planowane, monitorowane i weryfikowane na wyższym szczeblu. Wprowadzenie kontekstów hybrydowych będzie miało / ma silny wpływ na system edukacyjny i nie można się z nim mierzyć w sposób fragmentaryczny i chaotyczny. Decydenci polityczni i przepisy powinni zapewnić ścisłą koordynację, wspólne protokoły, stoły dyskusyjne, przy których szkoły mogą dyskutować ze swoimi rówieśnikami oraz interesariuszami regionalnymi lub ministerialnymi. Synergia między klasami i szkołami jest często trudna do osiągnięcia ze względu na zjawisko „izolacji klas". Należy to rozważyć i zająć się tym (np. poprzez tworzenie lokalnych społeczności praktyków) w celu transferu wiedzy i praktyk. Ponadto krajowe programy nauczania powinny umożliwiać i promować korzystanie z nauczania hybrydowego.

Należy sfinansować renowację infrastruktury, aby stworzyć podstawy do przejścia na środowisko hybrydowe.

Edukacja hybrydowa nie może ignorować pewnych podstawowych warunków. Stabilne łącza internetowe, urządzenia elektroniczne, w pełni wyposażone sale lekcyjne/laboratoria, zdigitalizowane materiały do nauki i inne minimalne wymagania to podstawowe elementy, bez których edukacja hybrydowa nie jest możliwa. Niemniej jednak, zwłaszcza na obszarach wiejskich, są one często nieobecne lub niewystarczające. Ponadto licencjonowana platforma i narzędzia są często niedostępne dla szkół o niskim budżecie. Z tego powodu należy udostępnić wystarczające zasoby gospodarcze, aby zagwarantować minimalny poziom infrastruktury, na którym można zbudować hybrydową szkołę przyszłości.[39] Szkoły powinny otrzymać wskazówki dotyczące finansowania, linki/źródła/kontakty z organizacjami finansującymi zarówno na szczeblu krajowym, jak i unijnym.

Kryzys związany z COVID-19 stanowił wymuszony impuls dla transformacji cyfrowej i hybrydowej, ale nie może to być jej horyzont. Szkoła hybrydowa to szkoła przyszłości.

Sytuacja kryzysowa związana z COVID 19 zmusiła wiele szkół do przyspieszenia cyfryzacji i hybrydyzacji swoich działań w nieoczekiwany i gwałtowny sposób. Aby nie zaprzepaścić wysiłków podejmowanych w tym okresie przez szkoły, nauczycieli, uczniów i instytucje, należy zadbać o to, aby ten skok naprzód miał charakter strukturalny. Oznacza to, że musimy wyjść z perspektywy sytuacji kryzysowych i wejść w perspektywę planowania.

[39] Zgodnie z Radą Europejską, 2021 r. Rezolucja Rady w sprawie strategicznych ram europejskiej współpracy w dziedzinie kształcenia i szkolenia w kierunku europejskiego obszaru edukacji i poza nim (2021–2030) – Priorytet strategiczny 5: Wspieranie transformacji ekologicznej i cyfrowej w ramach kształcenia i szkolenia oraz poprzez kształcenie i szkolenie . Rada Europejska, str. 16.

(RO) recomandări de politică

Rezumat

Dezvoltate de proiectul STEAME GOES HYBRID, aceste recomandări de politică au următoarele obiective:

- Furnizarea unei baze pentru discursul public și a unui fundament pentru consolidarea politicilor strategice cu privire la valorificarea hibridizării într-un mod sistematic în vederea implementării Spațiului Educațional European.
- O mai bună înțelegere de către decidenții la nivel european și de țară cu privire la provocările și nevoile școlilor, profesorilor și elevilor, cu un accent special pe tranziția digitală și mediile hibride de învățare.
- Contribuție la identificarea priorităților și elaborarea unor reglementări capabile să susțină școlile hibride.
- Crearea de noi viziuni strategice pentru instituțiile școlare moderne, ca urmare a pandemiei și a urgenței aduse în sistemele de învățământ.
- Contribuție la definirea de noi spații de învățare modelate prin formule digitale și hibride, sporind accesibilitatea și incluziunea furnizării de servicii educaționale.
- Stabilirea bazelor pentru o învățare cooperativă în UE, mai puternică în contextul digitalizării în școli.
- Creșterea gradului de conștientizare a publicului cu privire la implicațiile pregătirii digitale pentru comunitățile școlare, oferind contribuții bazate pe dovezi.

Proiectul a identificat recomandări în cinci domenii principale:

1. Sprijinul acordat profesorilor trebuie să fie continuu și multidimensional.

- **Învățarea pe tot parcursul vieții și dezvoltarea profesională continuă trebuie să fie fezabile pentru toți profesorii.**
- **Trebuie oferite suport și feedback continuu profesorilor.**
- **Profesorii trebuie sprijiniți să dezvolte experiențe educaționale de grup.**
- **Înțelegerea de bază a limbii engleze de către toți profesori trebuie încurajată.**

2. Trebuie promovată colaborarea multidisciplinară și interdisciplinară și noi metode de evaluare, depășind vechile paradigme a profesorului unic, care predă o unică disciplină.

- **Contextul hibrid este un context multidisciplinar și interdisciplinar și trebuie tratat ca atare.**
- **Trebuie introduse noi modalități de evaluare a nivelului de învățare al elevilor.**
- **Rolul cheie al Învățământului Superior are nevoie de susținere consistentă.**

3. Planificarea strategică și accesibilitatea ar trebui să fie considerate elemente esențiale în școala hibridă.

- **Planificarea strategică a programelor și a structurilor spațiale reprezintă un factor cheie în școlile hibride.**
- **Accesibilitatea pentru toți ar trebui promovată ca valoare cheie și standard de bază.**

4. Motivația și angajamentul la diferite niveluri trebuie promovate și susținute.

- **Motivația și angajamentul managerilor școlilor trebuie susținute, inclusiv prin introducerea certificărilor HYBRYD SCHOOL.**
- **Motivația profesorilor trebuie susținută pentru a realiza tranziția hibridă.**
- **Motivația și participarea elevilor trebuie susținute pentru a realiza tranziția hibridă.**
- **Părinții trebuie să fie informați și să capete încredere referitor la tranziția hibridă.**

5. Trebuie promovate planuri de tranziție către școala hibridă, inclusiv în vederea sprijinirii adaptării infrastructurii necesare.

- **Ar trebui elaborate planuri standardizate de tranziție digitală pentru a ghida managerii școlilor.**
- **Clase – Școli – Sistem Educațional: este nevoie de sinergie și coordonare.**
- **Renovarea infrastructurii ar trebui să fie finanțată pentru a pune bazele tranziției către mediul hibrid.**
- **Urgența COVID 19 a reprezentat un impuls forțat pentru tranziția digitală și hibridă, dar nu poate fi orizontul acesteia. Școala hibridă este școala viitorului.**

Recomandările de politici educaționale implementate de proiectul STEAME goes HYBRID

Proiectul a identificat recomandări în 5 domenii principale:

1. **Sprijinul pentru profesori trebuie să fie continuu și multidimensional**

Învățarea pe tot parcursul vieții ar trebui să fie fezabilă și relevantă pentru toți profesorii. Importanța învățării continue a fost subliniată într-o mare varietate de documente europene. Pentru a sprijini fezabilitatea și eficacitatea cursurilor de formare, cadrelor didactice ar trebui să li se garanteze timpul și resursele necesare, având în vedere faptul că este nevoie de formare atât în privința competențelor digitale, cât și în privința abordărilor didactice în mediul digital. În caz contrar, conceptul de învățare pe tot parcursul vieții va rămâne doar pe hârtie, dar nu va avea un impact real asupra sistemului educațional din Europa. [40]

Este necesar sprijin continuu și feedback pentru profesori. Profesorii, chiar și atunci când au abilitățile digitale necesare pentru a folosi instrumentele digitale puse la dispoziție, au nevoie de îndrumări și feedback constructiv cu privire la modul de aplicare a învățării bazate pe proiecte și în general, în implementarea abordărilor de tip hibrid. [41] De asemenea, ar trebui încurajată promovarea predării și învățării hibride în rândul profesorilor și al elevilor și ar trebui să li se permită ambilor să testeze medii hibride de învățare înainte de a le adopta. Profesorii ar trebui sprijiniți și în ceea ce privește metodologiile de predare și design al învățării. Trebuie efectuate cercetări pentru a stabili o metodologie de fundamentare, iar bunele practici ar trebui puse la dispoziția profesorilor pentru a-i sprijini în practica lor de zi cu zi.

Profesorii ar trebui sprijiniți să-și dezvolte competențele privind lucrul cu grupe variate de elevi și să fructifice experiențele de învățare în grup (colectivă). De foarte multe ori, în contextul educației hibride (mixte) chiar mai mult decât în cel tradițional, focusul intervenției este centrat pe elev. Dar componenta de interacțiune de grup este și ea importantă, drept care are nevoie de o pondere suficientă. Concentrarea excesivă pe învățarea/predarea individuală nu ține cont de dinamica grupului care influențează în schimb puternic modul în care elevii abordează învățarea, durata de concentrare a atenției, performanța pe care elevii o înregistrează în interacțiunile

[40] Aliniat cu European Council, 2021. *Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030) - Strategic priority 2: Making lifelong learning and mobility a reality for all*. European Council, p.11.

[41] Aliniat cu European Commission, 2020. *DIGITAL EDUCATION ACTION PLAN 2021-2027*- 4.1 Strategic priority 1: Fostering the development of a high-performing digital education ecosystem, *Digital education content and training in digital skills – including digital teaching methods – will be essential for staff*, European Commission. p.10.

colective. Din acest motiv, competențele profesorilor ar trebui susținute în direcția oferirii de instrumente pentru a cunoaște, îndruma și utiliza cât mai bine dinamica interacțiunilor de grup în activitățile hibride. În general, abordarea învățării hibride ar trebui văzută ca o nouă metodă de predare și învățare, mai degrabă decât ca o soluție ad-hoc la o situație de criză.

Competențele lingvistice ale profesorilor ar trebui susținute prin programe adecvate, mai ales în privința accesului la comunicare în limba engleză. O mare parte dintre profesorii din UE nu comunică în limba engleză. În același timp, o mare parte dintre resursele pe care le au la dispoziție pentru a construi medii de învățare hibride și a aplica metode adecvate de predare (instrumente digitale, metodologii, exemple de activități etc.) sunt în limba engleză. Din acest motiv, învățarea limbii engleze ar trebui inclusă în cursurile de formare și actualizare continuă a profesorilor. În acest fel, ar fi maximizată exploatarea resurselor deja disponibile, dar de foarte multe ori insuficient de răspândite din cauza barierelor lingvistice. Acest lucru le poate facilita, de asemenea, internaționalizarea și cooperarea într-o varietate de rețele.

2. **<u>Colaborarea multidisciplinară şi interdisciplinară a cadrelor didactice, precum şi noi metode de evaluare trebuie încurajate, depăşind vechea paradigmă a profesorului unic la clasă şi a examenului tip test scris</u>**

Contextul hibrid este un context multidisciplinar și interdisciplinar și trebuie tratat ca atare. Adaptarea conținutului educațional la contexte hibride necesită timp și, mai ales, competențe tehnice care de multe ori nu fac parte din pachetul de competențe deținut deja, cum ar fi, spre exemplu, digitizarea conținutului, pregătirea platformelor online, soluționarea problemelor tehnice de IT etc. În acest sens, abordarea hibridă necesită o contribuție multidisciplinară care presupune, printre altele, participarea cadrelor didactice, a tehnicienilor IT, a experților în educație online etc. În același timp, elevii au nevoie și de personal dedicat, care să știe să-i orienteze în tranziția către educația hibridă. Mai mult, învățarea bazată pe proiecte necesită implicarea profesorilor din diferite discipline și domenii, care știu să depășească vechea paradigmă de predare unică. În plus, co-prezența profesorilor de diferite discipline necesită un timp adecvat dedicat pentru planificarea și co-crearea activităților. Din acest motiv, crearea de echipe multidisciplinare ar trebui susținută pentru a completa metodele individuale de predare, diminuând posibile neajunsuri ale acestora.

Sunt necesare noi modalități de evaluare a gradului de învățare și a nevoilor de învățare ale elevilor. Ca evaluarea să fie semnificativă și să valideze învățare semnificativă, este necesară schimbarea paradigmei care prevede evaluarea elevilor pe baza examenelor individuale. Abordarea hibridă este multidisciplinară, implică motivație intrinsecă și este adesea colectivă.

Prin urmare, evaluarea clasică individuală pe bază de test scris nu mai are sens și ar trebui în schimb înlocuită cu evaluarea mai cuprinzătoare a portofoliului elevului. Din acest motiv, este esențial ca profesorii și sistemul școlar în general să fie sprijiniți în identificarea unor noi metode de evaluare, mai potrivite pentru predarea hibridă. Aceasta include și evaluările naționale. Examenele care se susțin la nivel național au nevoie să fie redefinite astfel încât să incorporeze validarea competențelor dobândite în contexte de învățare hibride. Evaluarea pe bază de standarde trebuie să aibă în vedere diferite contexte de susținere a examenelor naționale astfel încât competențele implicate de abordările hibride să fie validate în mod adecvat.

Rolul cheie al Învățământului Superior. Ca responsabile de formarea viitorilor profesori, institutele de învățământ superior joacă un rol cheie în tranziția digitală a sistemului de învățământ. Din acest motiv, este esențial ca învățământul superior să susțină învățarea bazată pe probleme, plasând-o alături de abordări mai convenționale. Formarea viitorilor profesori ar trebui să se concentreze mai ales pe practică și mai puțin pe teorie, mai ales când vine vorba de pregătirea pentru contexte hibride. În special, parteneriatul școală-universitate ar trebui promovat pentru:

- Dezvoltarea de comunități de practici în rândul cadrelor didactice;
- Oferirea unui cadru de practică relevant pentru studenți, cu accent pe abordările interdisciplinare STEAME;
- Stabilirea unui mecanism de monitorizare/evaluare pentru aceste parteneriate.

3. Planificarea strategică și accesibilitatea ar trebui considerate elemente esențiale în școala hibridă

Planificarea strategică a programelor și a mediilor de predare este un factor cheie în setările hibride. Necesitatea de a implica o echipă multidisciplinară și de a avea un cadru care să ia în considerare și să utilizeze pozitiv dinamica grupului în interacțiunile de tip hibrid necesită în mod necesar o schimbare în structurarea timpului și a orelor dedicate școlii. Este necesar ca profesorii pe de o parte și elevii pe de altă parte să aibă posibilitatea de a-și adapta programul într-un mod flexibil, în funcție de nevoile proiectului specific. Totodată, clasa-spațială trebuie reconsiderată și adaptată în funcție de nevoile proiectului. Spațiul fizic și virtual trebuie să fie compatibil; elevii și profesorii trebuie să comunice într-un mod care să fie funcțional pentru predare. Din acest motiv, este necesară reformarea demersului monolitic și depășit care stabilește, a priori, timp și spații prestabilite pentru predare-învățare-evaluare.

Este nevoie de flexibilizare curriculară pentru a se putea integra online-ul și a realiza învățarea mixtă. Apare ca o necesitate asigurarea unei autonomii decizionale în alegerea formei de învățare mixte pentru unitățile de învățământ, având în vedere că fiecare școală are capacități și

nevoi proprii, în funcție de contextul real. De exemplu, specificul școlii condiționat de localizarea socio-geografică și mediul familial de proveniență al elevilor ghidează tipul de activități mixte necesar a fi implementate (remediale, de performanță, bazate pe proiecte etc.).

Accesibilitatea pentru toți ar trebui promovată ca valoare cheie și standard de bază. Toate contextele educaționale trebuie să fie accesibile și persoanelor cu dizabilități și nevoi speciale. Din acest motiv, criteriile minime de accesibilitate ar trebui să fie produse și promovate prin orientări și reglementări specifice. Ar trebui să se acorde sprijin dedicat pentru a face accesibile atât spațiile fizice, cât și cele digitale, doar în acest fel educația hibridă poate fi cu adevărat accesibilă tuturor. [42]

4. Motivația și angajamentul la diferite niveluri trebuie promovate și susținute

Motivația managerilor școlilor trebuie susținută, inclusiv prin introducerea unor certificări specifice. Tranziția la predarea hibridă nu poate ignora motivația directorilor de școli și a școlilor. Acest aspect trebuie considerat la fel de important ca și resursele economice. Fără unul dintre cele două elemente, trecerea la hibrid nu poate avea loc. Din acest motiv, este important să se creeze etichete standardizate și recunoscute la nivel internațional, care să ateste nivelul atins de fiecare școală în tranziție și/sau angajamentul explicit pe care aceasta l-a semnat cu privire la realizarea unor obiective specifice spre tranziție. În acest fel, școala care se angajează să-și investească resursele în tranziție ar primi feedback în ceea ce privește vizibilitatea și o îmbunătățire evidentă a calității ofertei sale. La rândul său, acest lucru ar spori sustenabilitatea economică a școlii în sine.

Motivația profesorilor trebuie susținută pentru a realiza tranziția hibridă. Motivarea profesorilor și aderarea acestora la planurile hibride de tranziție ale școlilor reprezintă un alt element cheie. Fără a generaliza, trebuie avut în vedere că de multe ori tendința larg răspândită

[42] Aliniat cu European Commission, 2020. *COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on achieving the European Education Area by 2025 - 3.2 Making education and training more inclusive and gender sensitive*. European Commission, p.14.
Aliniat cu European Commission, 2020. *DIGITAL EDUCATION ACTION PLAN 2021-2027 - 4.1 Strategic priority 1: Fostering the development of a high-performing digital education ecosystem*. European Commission. p.10
Aliniat cu European Council, 2021. *Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030) - Strategic priority 1: Improving quality, equity, inclusion and success for all in education and training*. European Council, p.9.

la nivelul personalului didactic este de a se opune schimbării planurilor de predare și introducerii de noi instrumente. Uneori, noul este privit ca solicitând timp și resurse în fața unor rezultate slabe sau chiar irelevante. Din acest motiv, angajamentul profesorilor în schimbarea digitală ar trebui încurajat. În acest sens, profesorii trebuie să primească sprijinul necesar și însoțirea dedicată care să-i ajute să înțeleagă motivațiile și obiectivele inovațiilor introduse. Consilieri cu abilități în predarea de tip hibrid ar putea colabora în cadrul școlilor pentru a oferi informații și îndrumare profesorilor care au nevoie, pentru a reduce anxietatea față de schimbare.[43] Într-o anumită măsură, și stimulentele financiare ar putea consolida implicarea profesorilor.

Motivația elevilor și a părinților lor trebuie susținută pentru a realiza tranziția hibridă. Interdisciplinaritatea, contextele colective de predare și mediile hibride pot reprezenta potențial elemente care măresc distanța dintre elev și profesorii săi, colegii săi, conținuturile de formare. Totuși, în același timp, ele pot reprezenta oportunități de neratat pentru a scurta aceste distanțe. Prin urmare, este esențial ca tranziția să aibă loc în mod înțelept și planificat, pentru a nu lăsa pe nimeni în urmă. Din acest motiv, individualizarea programelor educaționale, identificarea cursurilor de formare cu obiective individuale și adaptabile și sprijinirea co-creării de proiecte de către elevi trebuie stimulate și incluse în planurile educaționale. [44]

Întrucât școala hibridă presupune o serie de activități care au loc în mediul familial, motivația părinților pentru învățarea copiilor lor trebuie luată în seamă mult mai serios decât anterior, inclusiv prin acordarea de stimulente pentru a sprijini achiziționarea de dispozitive adecvate. De asemenea, elevii cu nevoi speciale pot fi mai bine implicați în abordarea hibridă dacă părinții lor sunt conștienți de avantajele și posibilitățile acesteia de a potența învățarea în cazuri de deficiențe motrice, vizuale, auditive etc.

Pe de altă parte, ar trebui să fim sinceri atunci când convingem părinții cu privire la învățarea hibridă. Astfel, unele competențe sunt mai bine atinse într-un cadru hibrid, în timp ce altele, în clasa tradițională, iar părinții ar trebui să fie conștienți de asta, pentru a-și doza ei înșiși eforturile.

Părinții trebuie să fie informați și încrezători cu privire la tranziția hibridă. Părinții joacă un rol crucial în creșterea copiilor lor. Aceștia trebuie să fie informați despre schimbările aduse de setările hibride, să fie liniștiți cu privire la riscurile potențiale și informați despre posibilele beneficii. Comunicarea cu părinții trebuie menținută și aceștia ar trebui să fie însoțiți pas cu pas.

[43] Aliniat cu propunerea European Commission, 2020. *COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on achieving the European Education Area by 2025 - 3.4 Enhancing competence and motivation in the education.* p.18.

[44] A good practice on this is represented by the STEAME STUDENTS project.

Implicarea părinților ar trebui să vizeze două obiective: Să ofere părinților informații despre utilizarea mediilor hibride în activitățile școlare și să le permită să joace un rol mai activ în îndrumarea copiilor lor atunci când sunt acasă.

Ar trebui să fie implicați ambasadori ai învățării hibride instruiți în utilizarea abordărilor și a spațiilor hibride pentru a oferi suport diferiților parteneri din domeniul educațional. Acești ambasadori ar putea fi punctul focal pentru sprijinirea liderilor școlilor, profesorilor, elevilor și părinților.

5. Sunt de avut în vedere planuri de tranziție la școala hibridă, pe baza unui cadru legislativ adecvat, în vederea sprijinirii adaptării necesare privind logistica organizării programului școlar și infrastructura materială.

Ar trebui elaborate planuri standardizate de tranziție digitală pentru a ghida managerii școlilor. Din acest motiv, adoptarea planurilor de transformare digitală care să țină cont de tranziția către o infrastructură adecvată ar trebui promovată în toate școlile. În același timp, este important ca aceste planuri să fie relativ standardizate și partajate, pentru a oferi managerilor școlari ghiduri concrete la care să se refere și instrumente practice de pus în aplicare. În acest fel, un răspuns concret la cerințele tehnice ale școlilor ar putea fi mai ușor de planificat și implementat concret.

Renovarea infrastructurii ar trebui finanțată pentru a pune bazele tranziției la mediul hibrid. Educația hibridă nu poate ignora unele condiții fundamentale de bază. Conexiuni stabile la internet, dispozitive electronice, spații fizice/laboratoare adecvate, săli de clasă complet echipate, material de învățare digitalizat și alte cerințe minime sunt elemente esențiale, fără de care nici măcar gândirea la educația hibridă nu este posibilă. Cu toate acestea, mai ales în contexte rurale, acestea sunt adesea absente sau insuficiente. De asemenea, platformele și instrumentele licențiate sunt adesea inaccesibile școlilor care dispun de bugete reduse. Din acest motiv, ar trebui puse la dispoziție resurse economice suficiente, inclusiv prin proiecte europene, pentru a garanta nivelurile minime de infrastructură pe care să se construiască școala hibridă a viitorului.[45]

[45] Aliniat cu propunerea European Council, 2021. *Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030) - Strategic priority 5: Supporting the green and digital transitions in and through education and training*. European Council, p.16.

***Este necesară găsirea unor soluții de diminuare a costurilor printr-o logistică adecvată a procesului didactic și optimizarea distribuirii de resurse*.** Se pune în mod susținut problema găsirii unor soluții de minimizare a costurilor, prin: regândirea structurii normelor didactice, grupări flexibile ale claselor de elevi, noi structuri ale orarelor școlare etc., măsuri care să permită folosirea optimă a timpului și a spațiului școlar. De asemenea, este necesară luarea în considerare a posibilului transfer de costuri spre familie și gândirea unei scheme de ajutor. La toate nivelurile de decizie, trebuie avut în vedere faptul că un sistem mixt nu trebuie să ducă la o deresponsabilizare a sistemului de învățământ sau la împovărarea familiilor, nici în termeni de costuri financiare, nici în termeni de timp. Este importantă asigurarea resurselor necesare unei folosiri eficiente și adecvate a sistemului de educație mixt care să țină seama atât de starea de bine a tuturor participanților la educație, cât și de progresul școlar al elevilor.

Clase – Școli – Sistem educațional: este nevoie de sinergie și coordonare. Tranziția digitală reprezintă o schimbare epocală care are impact asupra vieții fiecăruia. Impactul este deosebit de evident în școală și în educație în general. Din acest motiv, eforturile școlii ar trebui să fie inserate într-un cadru de tranziție comun, planificat, monitorizat și verificat la nivel superior. Introducerea contextelor hibride va avea/are un impact puternic asupra sistemului educațional și nu poate fi realizată într-un mod fragmentat și necorelat. Factorii de decizie și reglementările ar trebui să asigure o coordonare sistematică, protocoale partajate, precum și un proces de coordonare a dezbaterilor în care personalul școlilor să poată discuta cu colegii lor și cu părțile interesate regionale sau ministeriale. Eforturile școlii unice ar trebui aliniate la un cadru comun de tranziție, planificat, monitorizat și verificat la nivel superior. Sinergia între clase și școli este adesea dificil de realizat din cauza fenomenului de „izolare a clasei”. Acest lucru trebuie luat în considerare și abordat (de exemplu, prin punerea în aplicare a comunităților locale de practică) pentru a transfera cunoștințe și practici. În plus, programele curriculare naționale ar trebui să permită și să promoveze utilizarea învățării hibride.

Renovarea infrastructurii ar trebui finanțată pentru a pune bazele tranziției la mediul hibrid.

Educația hibridă nu poate ignora unele condiții fundamentale de bază. Conexiuni stabile la internet, dispozitive electronice, săli de clasă/laboratoare complet echipate, material de învățare digitalizat și alte cerințe minime sunt elemente esențiale, fără de care educația hibridă nu este posibilă. Cu toate acestea, mai ales în contexte rurale, acestea sunt adesea absente sau insuficiente. De asemenea, platforma și instrumentele licențiate sunt adesea inaccesibile școlilor cu un buget redus. Din acest motiv, ar trebui puse la dispoziție resurse economice suficiente pentru a garanta nivelurile minime de infrastructură pe care să se construiască școala hibridă a

viitorului. Școlilor ar trebui să li se ofere îndrumări de finanțare, legături/surse/organizații de contact de finanțare atât la nivel național, cât și la nivel european.

Urgența COVID 19 a reprezentat un impuls forțat pentru tranziția digitală și hibridă, dar nu poate fi orizontul acesteia. Școala hibridă este școala viitorului!

Urgența COVID 19 a forțat multe școli să accelereze digitizarea și hibridizarea activităților lor într-un mod neașteptat și abrupt. Pentru a nu irosi eforturile depuse de școli, profesori, elevi și instituții în această perioadă, este necesar să ne asigurăm că acest salt înainte devine structural. Adică trebuie să ieșim din perspectiva urgenței și să intrăm în cea a planificării.

ANNEX II– Evaluation of the Policy Recommendations developed by the STEAME goes HYBRID Project

Introduction

The present document serves as an evaluation report on the Policy Recommendations developed by the Steame goes HYBRID Project.

The policy recommendations were designed as a reference document for key actors operating in the school sector, with the ambition to visualize the EU way towards the implementation of hybrid learning frameworks in schools, particularly related to STEAME activities. Them summarize the view of the consortium on the aspects of policies to systematically implement hybrid education and how they should be managed and implemented including minimum technological infrastructure.

A first version of this document was drafted by the European Digital Learning Network ETS and reviewed by the project partners during the third Transnational Project Meeting in Athens.

Subsequently, a consultation phase was implemented, involving forty (40) relevant stakeholders in the school sector. Their feedback has been collected and included in the final version of this document.

Specifically, here below the description of the stakeholdersà consultation.

Assessment Procedure and Data Collection

To achieve its assessment goals, the University of Aegean, the leading organization in the Quality Assurance of the project, created an online survey using Google Forms. The survey was disseminated by all partner organizations to their stakeholders in order to reach the target number of responses. It included two (2) identification questions, and three (3) open-ended questions.

The data analysis is based on the **40 responses** obtained. All questions were optional, except the identification questions. Responses to the evaluation of the Policy Recommendations derive from stakeholders in the following Partner countries:

Partner Country	Number of Responses
Romania	25
Italy	9
Greece	6

The survey was primarily aimed at policy makers and responsible of decision making, and the majority of the responses (XX were obtained from these categories:

Partner Country	Number of Responses
School teracher	18
Decision making institution	7
Policy maker	5
High school teacher	5
Student	1
Translator	1
Other	3

Open-ended questions

The three open-ended questions asked participants to identify any policy recommendations to add, modify or delete. The feedback has been collected and included in the final version of the document. We have reported below the questions and some of the answers received, only those relevant as they make an effective contribution to the final version of the document.

- Are there any recommendations that, from your point of view, are fundamental but are not included in the ones listed above?

✓ Bisogna ricordare che non è possibile fare innivazione senza i finanziamenti ed i fondi necessari. Altrimenti queste policy recommendations rimarranno soltanto sulla carta.

✓ "Personally I would highlight more the importance of the economic recognition of the teaching profession. if you ask teachers to be more prepared, to work with different hours, etc., then you need to think of a different way of providing financial incentives for teachers and also of a different way of selecting/evaluating them.

✓ And this must be done before or in parallel with the introduction of new teaching methodologies otherwise they will not work

✓ In the same way, I would underline the importance of prior quantifying the economic resources needed to change/adapt the infrastructures (from monolithic and outdated sets, a priori, pre estabilished times and spaces for teaching). How many financial resources do we need?

✓ Because if we apply new methodogies with old infrastructures or old working schedules, they will not work!.

✓ And also in this case, the improvement of the infrastructures of the schools must be done before or in parallel with the introduction of the new methodology, otherwise they will not work"

✓ As for continuous support to teacher, I would highlight the importance of publishing houses for the preparation of material/ grounding methodology and good practices. The teacher needs to find the teaching material 'as ready as possible' and this is provided by the publishers (books, workbooks)... rather than by the involvement of universities... or better, universities can work with publishers to prepare hybrid teaching activities

✓ The document covers all the important recommendations. One chapter could be dedicated to the "content". Should subject content change to move towards the hybrid model? A further point should be considered: how to ensure that the hybrid model approach is taught to teachers already

in their learning phase (i.e. University, specialization classes). Motivation is also a strong influencer in the process, perhaps some recommendations should be dedicated to how teachers can be motivated.

- ✓ We think that it should be taken into consideration teachers' training should happen during the working hours.
- ✓ From our Point of view Policy recommendations are complete.
- ✓ To carry out for the instructional material a formative and summative evaluation. The development of the instructional material should be based on the current positions on the learning.
- ✓ The presented list seems complete.
- ✓ I think that the elaborated list is complete.
- ✓ Sprijin acordat si elevilor, prin diferite resurse materiale, pentru a continua invatarea si acasa
- ✓ Curriculum reform of Initial Teachers Education training programs should be aligned and adopted to schools' new curriculums which must become more STEAME and hybrid-oriented, especially after the COVID-19 pandemic experience. Moreover, teachers' readiness to adopt and support hybrid educational interventions should be considered as a major factor of success and must be part of the recommendations towards a new teachers professional development framework.
- ✓ Universities should develop, in collaboration with the Ministries of Education, educational programs for in service teachers focusing on problem-based and project based learning and hybrid learning environments
- ✓ First main area: Continuous support to teachers is mentioned, but not by whom.] Fourth main area: The role of the school counselors must be clarified, they too have to support and motivate teachers and schools towards hybrid teaching.

- Are there any recommendations listed above that you disagree with or that you would like to remove?

- ✓ As far as the active role of parents is concerned, granted that it would be desirable, but I think we have to consider: 1) parents may not have the skills + 2) the school must aspire to be 'autonomous' in its educational activity and not to offload the task of school education onto the shoulders of parents
- ✓ Regarding the new ways of assessing students: the hybrid approach is 'link to motivation, often collective'... but the assessment in the end is individual... and one has to be careful because then parents can ask for an account of the assessments given to their children especially negative assessments
- ✓ No
- ✓ Lack of time by teachers emerges as one of the most important barriers to the hybrid move. Clarified that it is surely an important impediment, I think that having it as first point is over-emphasizing the important of this factor. Most of the time, knowing what to do and having the right motivation are the real points. In this sense creating a sense of urgency and expanding the comfort zone of some teachers should be one focus point.

- Do you have other proposals to make or changes to suggest?
- ✓ I propose to make the document more short, it is too much long
- ✓ The document is too much long
- ✓ In order to give more 'value' to the school label, it could be tied to the funds the school receives, also because in the state system there is no correlation between the return of visibility and the strengthening of the economic sustainability of the school
- ✓ With regard to lifelong learning and continuing professional development, it must not only be feasible, but also MEANINGFUL for the teacher. Teachers are full of courses that are of NO quality! and that add nothing to their professional background!!... Therefore it is necessary a careful and precise evaluation of professional training!
- ✓ The instructinal material to be characterised by coherence, focusing on learning progression (a learning progression represents a “roadmap” of how students can potentially move toward more sophisticated levels of understanding of ideas).

Conclusion

Most of the responses collected were limited to confirming the validity of the policy recommendations. In particular, the second and third questions collected feedback which, in part or in full, was already part of the recommendations and therefore added little.

Most of the answers collected focused more on the structure than on the contents of the document. In particular, the document was considered too long.

Another aspect that is particularly frequent in the answers is that of the motivation and involvement of the teachers. While all stakeholders are important (students, teachers, school managers, families of students, etc.) the need to support teachers and give them the time and resources to address and benefit to the fullest from the hybrid transition is considered one of the essential aspects.

Lastly, some feedback asked to underline the need to support the transition to the hybrid school through greater availability of funds.

In conclusion, the evaluation of the Policy Recommendations developed by the STEAME goes HYBRID Project was positive.

ANNEX III Stakeholders' evaluation of the STEAME Hybrid School Label

Introduction

The present document serves as an evaluation report on the procedure of obtaining the STEAME Hybrid School Label, developed by the consortium of the Project. The primary goal of this assessment is to evaluate the effectiveness and impact of obtaining the school label. The report presents valuable insights and recommendations that aim to improve further the procedure of obtaining the school label, allowing it to scale up and benefit a larger number of students and schools.

The STEAME Hybrid School Label is an innovative initiative designed to enhance STEAME education, which combines science, technology, engineering, arts, mathematics, and entrepreneurship. It is a brand-new certification for schools and aims to attest the appropriate level of hybrid education readiness reached by schools, as well as their effectiveness in organizing and implementing hybrid STEAME activities in the teaching and learning practice. The Hybrid Label is a certified indicator confirming the effect of acknowledging and showcasing the commitment of that particular school towards high-quality digital education.

The findings of this report are based on rigorous data analysis and feedback from key stakeholders and provide detailed information on the program's strengths and areas that require improvement, enabling the consortium to refine and enhance the program's delivery further.

Assessment Procedure and Data Collection

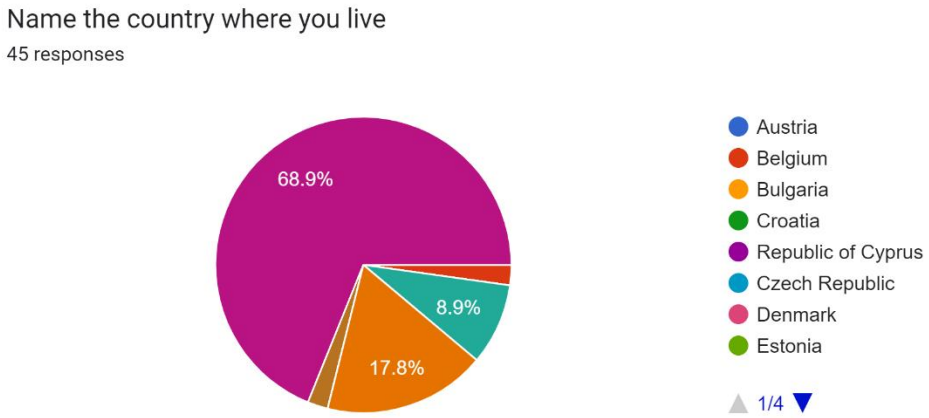
To achieve its assessment goals, the University of Aegean, the leading organization in the Quality Assurance of the project, created an online survey using Google Forms. The survey was disseminated by all partner organizations to their stakeholders in order to reach the target number of responses. It included three (3) identification questions, two (2) closed-ended questions, and two (2) open-ended questions.

The survey is divided into one (1) section that consists of two (2) closed-ended questions that capture the overall satisfaction with the STEAME Hybrid School Label and one (1) final section that consists of two (2) open-ended questions to record recommendations for improvement in a more detailed and descriptive way.

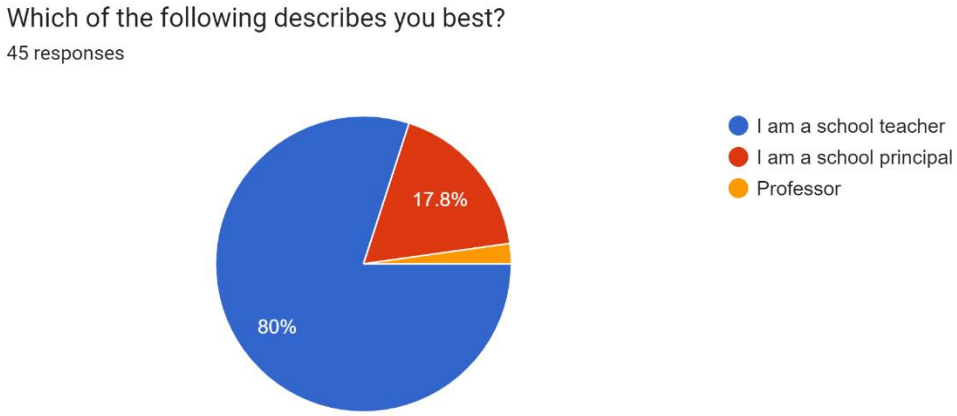
Data analysis includes descriptive statistics as well as content analysis procedures derived from both the open-ended questions and close-ended questions based on the partners' responses to the survey.

The data analysis is based on the **45 responses** obtained. All questions were optional, except the identification questions. Responses to the evaluation of the STEAME Hybrid School Label derive from stakeholders in the following Partner countries:

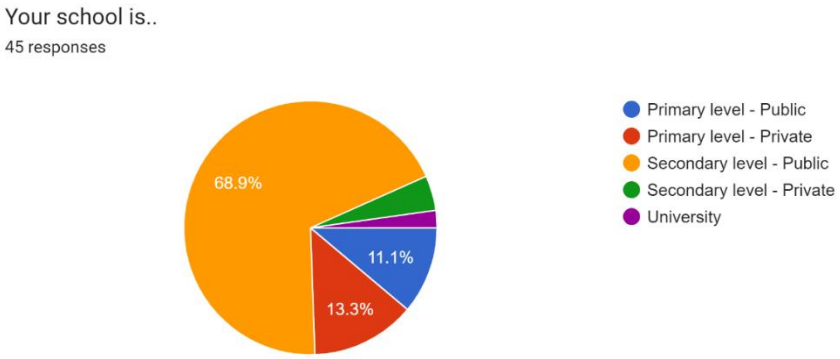
Partner Country	Number of Responses
Romania	31
Italy	8
Greece	4
Belgium	1
Poland	1



The survey was primarily aimed at educators, and the majority of the responses (80%) were obtained from school teachers:



With regards to the institutional level at which the respondents teach, the majority of the responses (68.9%) were obtained from public secondary schools, as the graph shows:



The findings of the data analysis are presented in the following section of this report.

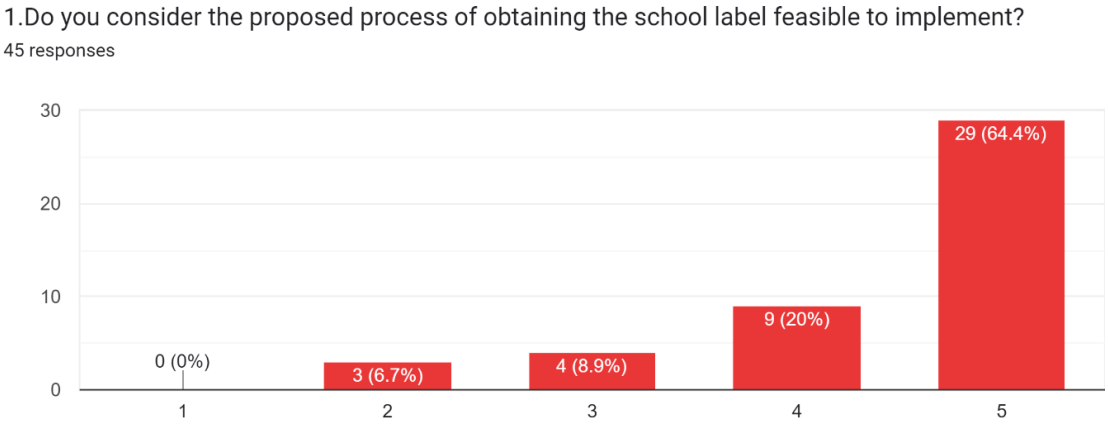
Survey's Findings

1. Overall Satisfaction with the STEAME Hybrid School Label

This section of the survey included two (2) close-ended questions that evaluated respondents' overall satisfaction with the process of obtaining the STEAME Hybrid School Label. The questions evaluated the feasibility of implementing the program and the helpfulness of the self-assessment tool. The questions used 5-point Likert scales ranging from "Strongly disagree" to "Strongly agree". The responses are as follows:

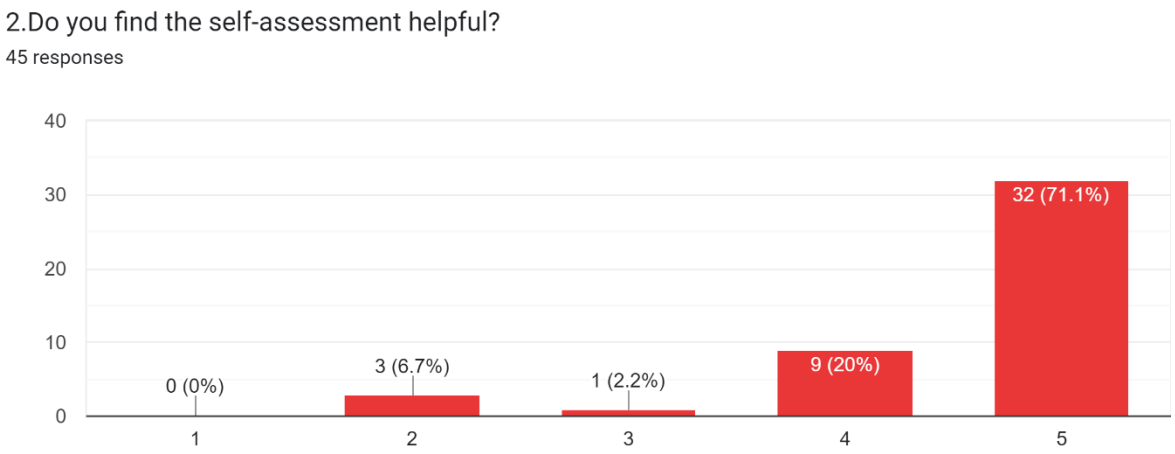
- Do you consider the proposed process of obtaining the school label feasible to implement?

Assessment criteria: 1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree



- Do you find the self-assessment helpful?

Assessment criteria: 1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree



2. Concerns (Open-ended questions)

The final part of the survey consisted of two (2) open-ended questions that aimed at recording the participants' suggestions for improvement.

- Write one item, in the School Label specifications that you like to change (explain briefly).
  - ✓ Nothing (9 responses)
  - ✓ The questions are not clear and they overlap
  - ✓ I don't understand some questions and some questions for students are not clear too
  - ✓ perhaps replace the self-assessment with a third-party assessment
  - ✓ I would suggest preparing an app/software (even a simple spreadsheet) to make the self-assessment process more fun/easier
  - ✓ Tutto il processo per avere la cvertificazione è complesso e con i documenti online non è chiaro cosa si debba fare. Capisco che la certificazione richieda impegno ma il processo per ottenerla manca totalmente di chiarezza. (English Translation: The whole process of getting certified is complex and with online documents it is not clear what needs to be done. I understand that certification takes effort but the process of obtaining it is totally lacking in clarity.)
  - ✓ Collaboration in the implementation of hybrid tools.
  - ✓ I would suggest to change the following sentence from step 3 "Through Step 2 the school realizes its weaknesses based on the survey criteria" to "Through Step 2 the school acknowledges its needs based on the survey criteria" to avoid misinterpretation or connotation.
  - ✓ The technology to be free and easily accessible
  - ✓ The school environment by creating an individual study space for students

- Write one item, in the School Label specifications that you like to add (explain briefly).
  - ✓ Nothing (7 responses)
  - ✓ perhaps a sort of "reward" could be added for obtaining the school label (for example obtaining funds or discounts for the purchase of technology, free participation in tech events...)
  - ✓ I would suggest attending a course/series of courses (also to be attended online) to "certify" the preparation of school teachers for SGH activities and consequently obtain the school label
  - ✓ Training courses on the importance of hybrid tools for use in schools
  - ✓ I would also include a hypertext for 'STEAME approach' (linked directly to the STEAME HYBRYD PROJECT document) and 'STEAME HYBRID activities' (linked directly to a sample of the activities related to the project). To facilitate the access to information for the interested parties that are not familiar with the project or with the platform.
  - ✓ More space for recreational activities
  - ✓ using image processing elements, each wall will have custom design elements

Conclusion

The assessment of the procedure to obtain the STEAME Hybrid School Label has yielded a positive yet constructive evaluation, highlighting areas for potential improvement and growth. As such, this assessment presents valuable opportunities for enhancing the overall quality and effectiveness of the program. Additionally, it provides a foundation for further refining and optimizing the STEAME Hybrid School Label process.

The results of the evaluation of the procedure to obtain the STEAME Hybrid School Label indicate that a significant number of participants found the process feasible and helpful. With 64.4% of respondents strongly agreeing and 20% agreeing with the feasibility of the process, it is clear that the procedure is seen as achievable and practical by the majority of participants. Similarly, 71.1% of respondents strongly agreed and 20% agreed that the self-assessment was helpful in guiding them through the process.

While the majority of participants found the process helpful, there were some areas where enhancements could be made. Some participants noted that there were overlapping questions and suggested that these could be made clearer to facilitate a better understanding. Others expressed confusion over certain questions, particularly those directed at students, and recommended that they be reworded or clarified.

In terms of enhancing the accessibility of the STEAME Hybrid School Label, participants recommended adding incentives such as rewards, training courses, and hypertext. These incentives would serve to encourage more schools to engage with the STEAME approach and provide a more comprehensive understanding of the process. For example, some participants suggested offering training courses to help teachers prepare for SGH activities and to enable them to obtain the school label more easily.

In conclusion, the evaluation of the procedure to obtain the STEAME Hybrid School Label revealed both positive feedback and opportunities for improvement. Overall, the STEAME Hybrid School Label procedure holds promise as a valuable tool for schools looking to enhance their hybrid teaching approaches.

Annex IV STEAME Hybrid School Label Questionnaire – Self-Assessment for Students

STEAME Hybrid School Label

Questionnaire – Self-Assessment for Students

Dear Students, we thank your school for its interest in receiving the STEAME Hybrid School Label. The following questionnaire is part of the self-assessment for receiving both Stage 1 and the full School Label. Please, complete the questionnaire by marking with an **X** the most suitable answer for each question. The questionnaire comprises of 6 categories and each category contains 3 questions.

Scoring Instructions: Each question is evaluated in a 5-point Likert scale and scored as below:

Strongly disagree → 1 point
Disagree → 2 points
Neutral → 3 points
Agree → 4 points
Strongly agree → 5 points

Any question that scores 3 or below, indicates that improvement is needed in the specific criterion.

In case more than 1 person complete the self-assessment (e.g. 20 students), the average of each question should be calculated. To calculate the average, find the sum of the scores and divide this number by the count of the total responses. Once the averages are calculated, please fill in a self-assessment document selecting the responses based on the averages and upload this one.

After the completion of the questionnaire, your school will upload the results here if applying to receive the STEAME Hybrid School Label – Stage 1, or here if the school is applying to receive the STEAME Hybrid School Label – full certification.

1. Leadership

1.1 In our school, there is a system for collecting students' feedback for hybrid activities (such as the STEAME Hybrid platform)

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: system/tools used to collect feedback and photo/screenshot

1.2 In our school, we are reviewed/evaluated for our progress in learning with digital technologies

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by students (by the person who completes the self-evaluation)

1.3 In our school we have access to new technologies with frequent updating and upgrading

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: list of new technologies and pictures/screenshots

2. Collaboration and Networking

2.1 We do Project Based Learning (PBL) activities during learning in school or at distance (online)

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: name of activity and picture/screenshot

2.2 When we do PBL activities, we have more than one teacher involved

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by students (by the person who completes the self-evaluation)

2.3 In our school, we talk/discuss with teachers about the advantages and disadvantages of the hybrid environment

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by students (by the person who completes the self-evaluation)

3. Infrastructure and Equipment

3.1 In our school we have access to digital devices (computers, tablets, or portable tools) for accessing hybrid learning

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: number of devices per student and photos

3.2 In our school, students with special needs have access to assistive learning technologies

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: photos/screenshots of assistive learning technologies

3.3 In our school, I have access to digital infrastructure (i.e. fast speed internet connection, software, computer labs, PBL spaces, access stations, etc.) to support my learning with digital technologies

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: photos/screenshots of infrastructure

4. Adaptive Competence of Teachers / Professional Development

4.1 Our teachers use online platforms to facilitate learning, in which we can actively participate

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: list of online platforms being used

4.2 Our teachers provide us with digital resources they have created for hybrid learning

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: examples of digital resources (e.g. files/links)

4.3 Our teachers provide us with other, open digital resources during our classes in hybrid environment

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: list of open digital resources

5. Pedagogy: Supports, Resources, Implementation and Assessment

5.1 I use technology to collaborate/provide feedback to other students

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: list of tools/platforms used for collaboration/feedback and screenshots

5.2 I am participating in cross-curricular projects using digital technologies

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: name of projects

5.3 In my school we have assessments that are done in hybrid environments

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by students (by the person who completes this self-assessment)

6. Student Digital Competence

6.1 In our school, I learn how to behave/interact responsibly and safely in a hybrid learning environment

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by students (by the person who completes this self-assessment)

6.2 In our school, I learn how to check that the information that I find online is reliable and accurate

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by students (by the person who completes this self-assessment)

6.3 In our school, I learn how to create digital content

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: examples (files or links) of digital content created

Annex V STEAME Hybrid School Label Questionnaire – Self-Assessment for Teachers

STEAME Hybrid School Label

Questionnaire – Self-Assessment for Teachers

Dear School representatives/teachers, thank you for your interest in receiving the STEAME Hybrid School Label. The following questionnaire is part of the self-assessment for receiving both Stage 1 and the full School Label. Please, complete the questionnaire by marking with an **X** the most suitable answer for each question. The questionnaire comprises of 6 categories and each category contains 5 questions.

Scoring Instructions: Each question is evaluated in a 5-point Likert scale and scored as below:

Strongly disagree → 1 point
Disagree → 2 points
Neutral → 3 points
Agree → 4 points
Strongly agree → 5 points

Any question that scores 3 or below, indicates that improvement is needed in the specific criterion.

In case more than 1 person complete the self-assessment (e.g. 20 teachers), the average of each question should be calculated. To calculate the average, find the sum of the scores and divide this number by the count of the total responses. Once the averages are calculated, please fill in a self-assessment document selecting the responses based on the averages and upload this one.

After the completion of the questionnaire, please, upload your results here if you are interested in receiving the STEAME Hybrid School Label – Stage 1, or here if you are interested/ready in receiving the STEAME Hybrid School Label – full certification.

1. Leadership

1.1 In our school we develop a readiness plan for hybrid learning environment in times of crisis

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: readiness plan in PDF/Word format

1.2 In our school I am actively involved in the preparation of readiness plans

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by teachers (by the person who completes this self-assessment)

1.3 My school supports me as a teacher in trying out new ways of teaching within a hybrid environment

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by teachers (by the person who completes this self-assessment)

1.4 My school provides access to new technologies for teaching and learning with frequent updating and upgrading

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: list with names of new technologies

1.5 My school supports me as a teacher in trying out new teaching approaches like PBL (Project Based Learning)

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by teachers (by the person who completes this self-assessment)

2. Collaboration and Networking

2.1 In our school, we collaborate with our colleagues in order to use Project Based Learning (PBL) method in teaching

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by teachers (by the person who completes the self-assessment)

2.2 In our school we run a SWOT analysis at least once per year between leadership and teachers in order to examine readiness in situations of crisis

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: SWOT analysis

2.3 In our school we organize meetings at least once per year between leadership and teachers to discuss ways of collaboration in teaching

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by teachers (by the person who completes the self-assessment)

2.4 Our school collaborates directly with other schools in the region in teaching, research, and innovation matters

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: list of other schools

2.5 Our school participates in regional networks (i.e eTwinning, projects, municipal, etc.) of schools for managing regional crisis situations

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: list of networks and screenshot of internal communication of exchange of experience

3. *Infrastructure and Equipment*

3.1 In our school, the infrastructure is sufficient in supporting teaching and learning with digital technologies

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: photos of infrastructure

3.2 In our school, there are digital devices (such as laptops or equivalent, or access to the STEAME-Hybrid platform) for me to use to facilitate learning

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: picture(s) of digital devices

3.3 In our school, there is sufficient and quality Internet access for teaching and learning

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: print screen of speed-test (www.speedtest.net)

3.4 In our school, technical support is available in case of technical problems with digital technologies

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: Method and/or link to support contact

3.5 In our school, cloud tools such as online platforms or online communications tools or similar are available for PBL

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: list of cloud tools and online platforms used

4. Adaptive Competence of Teachers / Professional Development

4.1 I feel competent to search for online digital educational resources to be adapted to my hybrid teaching

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by the teacher (by the person who completes the self-assessment)

4.2 I create digital resources myself to support hybrid teaching

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by the teacher (by the person who completes the self-assessment)

4.3 I feel competent to use virtual learning environments in a hybrid way with my students

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by the teacher (by the person who completes the self-assessment)

4.4 I have access and use open educational resources in class and in hybrid implementation of teaching

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: list of open educational resources used

4.5 I am given training opportunities related to hybrid teaching and learning environment

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: list of courses and training that teachers have participated in, in the last two years

5. Pedagogy: Supports, Resources, Implementation and Assessment

5.1 I use hybrid learning environments with my students for teaching and collaboration

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: list of hybrid learning environments

5.2 I use digital technologies for school-related communication

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: list of tools and screenshot

5.3 I use digital learning material (PDF documents, PPT, video learning, etc.) with my students

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: examples of digital learning material used

5.4 I engage students in using digital technologies in cross-curricular projects

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: list of tools and screenshot of tools

5.5 I adapt my student assessment method when teaching and learning is done in hybrid environment

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by teachers (by the person who completes the self-assessment)

6. Student Digital Competence

6.1 In our school, students learn how to behave responsibly and safely in a hybrid learning environment

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by teachers (by the person who completes the self-assessment)

6.2 In our school, students learn how to check that the information they find online is reliable and accurate

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by teachers (by the person who completes the self-assessment)

6.3 In our school, students learn how to create digital content

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: examples of digital content they have created

6.4 In our school, students learn how to communicate in a hybrid learning environment using technology

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: list of tools used for hybrid communication

6.5 In our school, students learn how to solve technical problems when using technology

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Evidence: is confirmed by teachers (by the person who completes the self-assessment)

TEMPLATE

STEAME HYBRID SCHOOL LABEL

IMPROVEMENT ACTION PLAN

Stage 1

Leadership		
Group	**Criteria identified**	**Improvement plan actions**
Teachers	e.g. In our school I am actively involved in the preparation of readiness plans	
Students		
Collaboration and Networking		
Teachers		
Students		
Infrastructure and Equipment		
Teachers		
Students		
Adaptive Competence of Teachers /Professional Development		
Teachers		
Students		
Pedagogy: Supports, Resources, Implementation and Assessment		
Teachers		
Students		
Student Digital Competence		
Teachers		
Students		

TEMPLATE

STEAME HYBRID SCHOOL LABEL

IMPROVEMENT REPORT

Stage 2

Leadership		
Group	**Criteria identified**	**Improvement Activities**
Teachers	e.g. In our school I am actively involved in the preparation of readiness plans	
Students		
List of evidence (may add links or photos)		
Collaboration and Networking		
Teachers		
Students		
List of evidence (may add links or photos)		
Infrastructure and Equipment		
Teachers		
Students		
List of evidence (may add links or photos)		
Adaptive Competence of Teachers /Professional Development		
Teachers		

Students		
List of evidence (may add links or photos)		
Pedagogy: Supports, Resources, Implementation and Assessment		
Teachers		
Students		
List of evidence (may add links or photos)		
Student Digital Competence		
Teachers		
Students		
List of evidence (may add links or photos)		

STEAME HYBRID SCHOOL LABEL

SUSTAINABILITY PLAN

Leadership	
Group	**Plan to sustain the current status**
Teachers	
Students	
Collaboration and Networking	
Group	**Plan to sustain the current status**
Teachers	
Students	
Infrastructure and Equipment	
Group	**Plan to sustain the current status**
Teachers	
Students	

Adaptive Competence of Teachers /Professional Development	
Group	**Plan to sustain the current status**
Teachers	
Students	
Pedagogy: Supports, Resources, Implementation and Assessment	
Group	**Plan to sustain the current status**
Teachers	
Students	
Student Digital Competence	
Group	**Plan to sustain the current status**
Teachers	
Students	

Co-funded by the Erasmus+ Programme of the European Union

CERTIFICATION

Project Name: STEAME GOES HYBRID: Blueprint Guidelines and Policy Recommendations

Reference Number: 2020-1-CY01-KA226-SCH-082675

STEAME HYBRID SCHOOL LABEL

STAGE 1

THIS CERTIFICATE IS AWARDED TO

SCHOOL NAME

Which certifies it has completed and passed the

STEAME Hybrid School Label – Stage 1 Certification Programme

Date

Signature

Co-funded by the Erasmus+ Programme of the European Union

CERTIFICATION

Project Name: STEAME GOES HYBRID: Blueprint Guidelines and Policy Recommendations

Reference Number: 2020-1-CY01-KA226-SCH-082675

STEAME HYBRID SCHOOL LABEL

3 YEARS VALIDATION

THIS CERTIFICATE IS AWARDED TO

SCHOOL NAME

Which certifies it has completed and passed the full

STEAME Hybrid School Label Certification Programme

Date

Signature

STEAME GOES HYBRID

Blueprint Guidelines and
Policy Recommendations

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